The Afghanistan Engineering Support Program assembled this deliverable. It is an approved, official USAID document. Budget information contained herein is for illustrative purposes. All policy, personal, financial, and procurement sensitive information has been removed. Additional information on the report can be obtained from Firouz Rooyani, Tetra Tech Sr. VP International Operations, (703) 387-2151.

Site Visit Report	Project: **Khulm Bus Terminal Construction**
Location: **Balkh** Province	Coordinates: Latitude: **N36~ 41' 54"** Longitude: **E 67~ 41' 20.5"**
Inspection Date: **November 6, 2013**	Weather: **Sunny, Temp @ 21°C, No Precipitation**
Inspectors: [redacted]	Status: **Incomplete**

PRESENTED TO

United States Agency for International Development (USAID)
Office of Economic Growth and Infrastructure (OEGI)

RampUP North

Great Massoud Road
Kabul, Afghanistan

PRESENTED BY

Tetra Tech, Inc.
Afghanistan Engineering Support Program
Contract No. EDH-I-00-08-00027-00
Task Order No. 1

Work Order WO-LT-0009 AMD #5

ShashDarak
Kabul, Afghanistan

Approved by: [redacted]

Date: **01/21/14**

Title: **Deputy Chief of Party**

EXECUTIVE SUMMARY

The Khulm Bus Terminal is being constructed on the main highway between Kabul and Mazar in the Khulm district of the Balkh Province. Prior to this project, the city had no bus terminal, and travelers had to stand on the main street for hours without access to public latrines or other facilities. In addition, the lack of vehicle parking lot facilities around the bus transit area caused traffic jams and increased the risk of traffic accidents. All work is funded by USAID and being performed by a subcontractor under the supervision of the RampUP-North Engineer and the Municipality according to the specifications and drawings.

On November 6, 2013, two civil engineers from Tetra Tech's (Tt) Afghanistan Engineering Support Program reviewed the project documentation for the Khulm Bus Terminal Construction and traveled to Balkh province to evaluate the visible completed works. Project documentation provided by RampUP North included plans (Appendix A), a Bill of quantity (Appendix B), and a project proposal in (Appendix C). There were no electrical drawings provided for this project. Tt has determined USAID's portion of the construction work for the Khulm Bus Terminal is incomplete and only in the beginning stages of construction. The contactor has only begun site demolition, excavation, septic tank excavation, and construction of the perimeter wall. All other work remains to be started. Tt also noted that the lack of electrical drawings and details may cause serious deviations from the project scope.

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This report was prepared for the United States Agency for International Development, Contract No. EDH-I-00-08-00027-00, Task Order 01, Afghanistan Engineering Support Program.

1.0 INTRODUCTION

The Khulm Bus Terminal Construction project is located in Khulm next to Khulm Municipality in Balkh Province. USAID and the municipality have been contributing to the construction of this Bus Terminal. This Bus Terminal provides services for people transiting to Mazar and other provinces. Khulm is located 60 kilometers east of Mazar-e-Sharif on the main highway between Kabul and Mazar, with a population of around 42,200 people. Prior to this project, the city had no bus terminal, and travelers had to stand on the main street for hours without access to public latrines or other facilities. In addition, the lack of vehicle parking lot facilities around the bus transit area caused traffic jams and increased the risk of traffic accidents.

The Bus Terminal drawings propose the following: brick masonry, waiting hall with toilets, vase wall, two sliding gates and a septic tank. According to the DAI site representative, the project has only just begun. All work is funded by USAID and being performed by a sub-contractor under the supervision of the RampUP-North Engineer and the Municipality according to the specifications and drawings.

2.0 SITE VISIT

Two civil engineers from Tetra Tech's (Tt) Afghanistan Engineering Support Program reviewed the project documentation for the Khulm Bus Terminal Construction and traveled to Balkh province on November 6, 2013 to evaluate the visible completed works. The provided project documentation included plans (Appendix A), a Bill of quantity (Appendix B), and a project proposal in (Appendix C). No electrical drawings were provided for this project. The Tt engineers were accompanied by a DAI site representative during the site evaluation. The findings of this site observation are documented in this report, including photos provided in the figures section on pages 5 to 9.

During site visit, Tt engineers met with a DAI representative and discussed project completion status and the reasons for delay. The construction work of the terminal was held up by the municipality for one month due to the necessity to demolish and reconstruct the perimeter wall of the Bus Terminal for security reasons.

3.0 SITE VISIT DETAILS: USAID RESPONSIBILITY

Regarding the USAID funded portion of works, the following was observed:

1. Demolition of the existing 60 meter long and 2.5 meters high boundary wall is complete. This complies with the Bill of Quantity (BoQ) line item 2.
2. Stone masonry work for the perimeter wall foundation is incomplete. (See Figures 1 and 2) The stones were being laid, however they were placed with the undressed stone faces towards the exterior faces of the walls; this will result in bad appearance and they will be exposed to future development and excavation of the ground around the exterior faces of the walls.
    a. **Remaining Work:** The contractor must complete the perimeter wall foundation.
3. Foundation work for the building is incomplete. (See Figures 3 and 9) The survey of the foundation was underway and excavation of the columns had begun, however all other work on the foundation had not yet begun.
    a. **Remaining Work:** The contractor must complete the excavation and foundation construction for the Bus Terminal building.
4. Construction of the septic tank was is incomplete. (See Figure 4) The excavation work was underway, however, the design for the septic tank is lacking information as to dimensions (only height was specified) and other details relevant for construction, such as detail on the access hatch and reinforcement for walls and slabs. There was also a serious safety hazard of cave-in and fall observed during the excavation work; the construction documents do not call for and or include any safety plan for excavation and other hazard involving activities this project may include.
    a. **Remaining Work:** Construction of the septic tank must be completed.
    b. **Additional Notes:** A safety hazard from cave-in was observed and no safety plan was in place.

5. **Other Additional Notes:** Tt engineers did not observe any electrical preparation work in progress on the site, however, the lack of drawings and details on electrical system and septic tank may cause serious deviations from project scope and requirements by the subcontractor.

All other works have not yet begun. This includes: the excavation work for proposed boundary wall, surveying work for elevation control of the foundations, the construction work of the boundary walls (to begin after the completion of stone masonry foundations, construction of waiting hall and bus station canopy, construction of the latrines, construction of box filter, construction of 5 gate valve boxes, and installation of HDPE in drainage.

Based on the above summary, Tt has determined USAID's portion of the construction work for the Khulm Bus Terminal is incomplete and only in the beginning stages of construction. The contactor has only begun site demolition, excavation, septic tank excavation, and construction of the perimeter wall. All other work remains to be started. Tt also noted that the lack of electrical drawings and details may cause serious deviations from the project scope.

FIGURES

Figure 1. Stone masonry for foundation of wall

Figure 2. Used small stone masonry in foundation

FIGURES (CONTINUED)

Figure 3. Excavation for foundation of columns

Figure 4. Excavation for septic tank

FIGURES (CONTINUED)

Figure 5. Backfill material

Figure 6. Sand for concrete and mortar

FIGURES (CONTINUED)

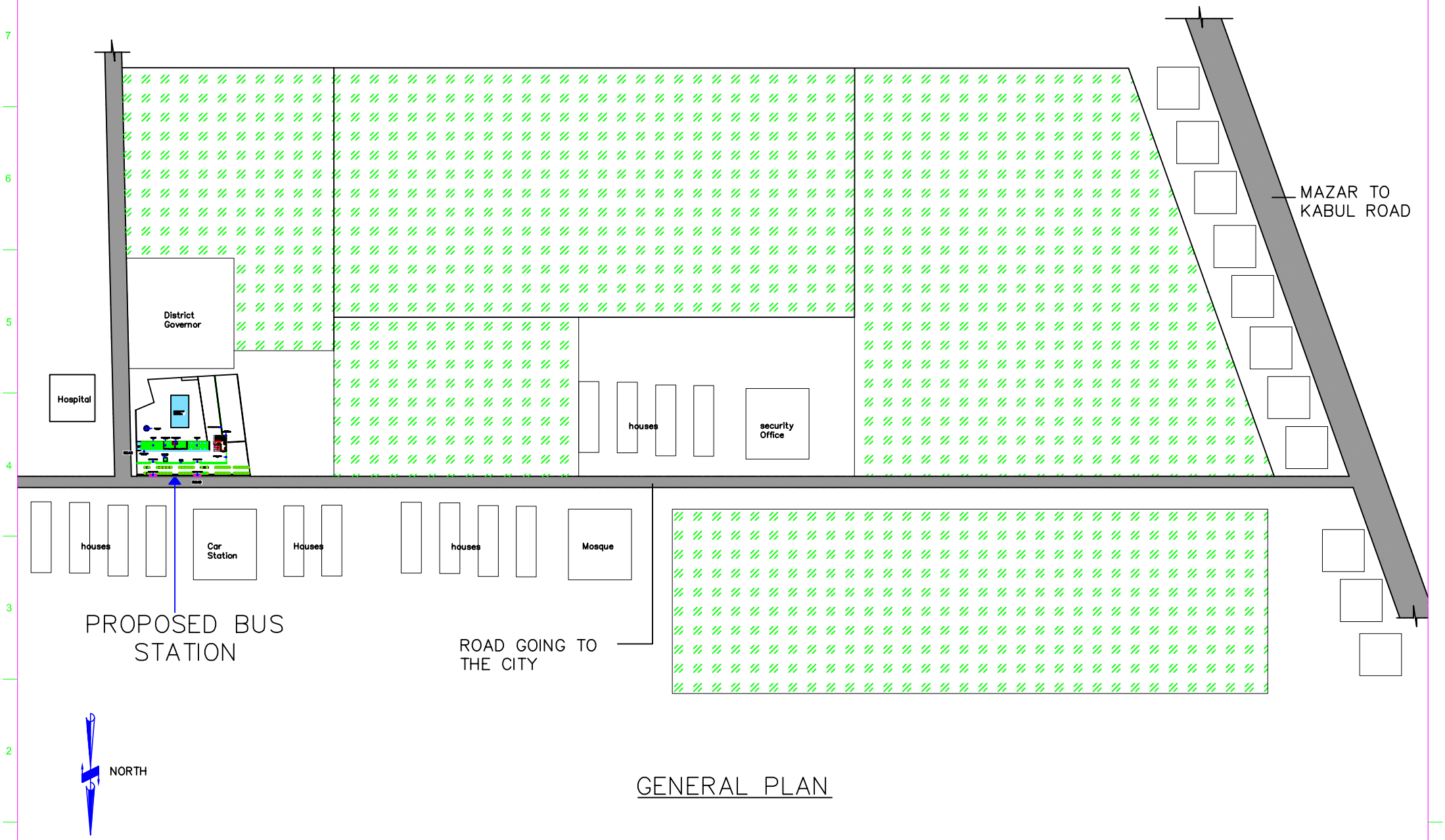
Figure 7. Cements bags

Figure 8. Water for mortar mixing

FIGURES (CONTINUED)

Figure 9. Survey for foundation

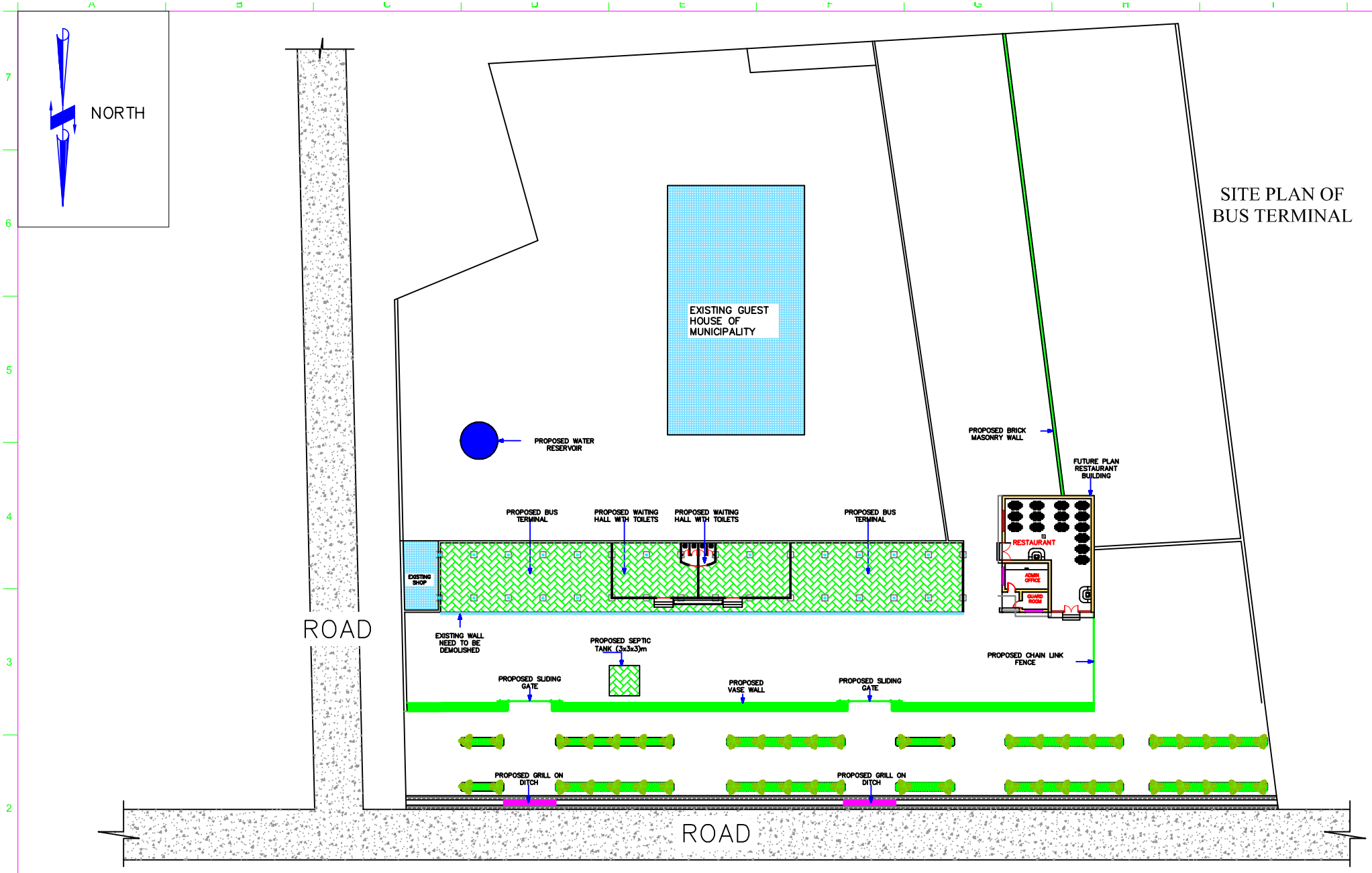
APPENDIX A – KHULUM BUS TERMINAL CONSTRUCTION PLANS



GENERAL PLAN

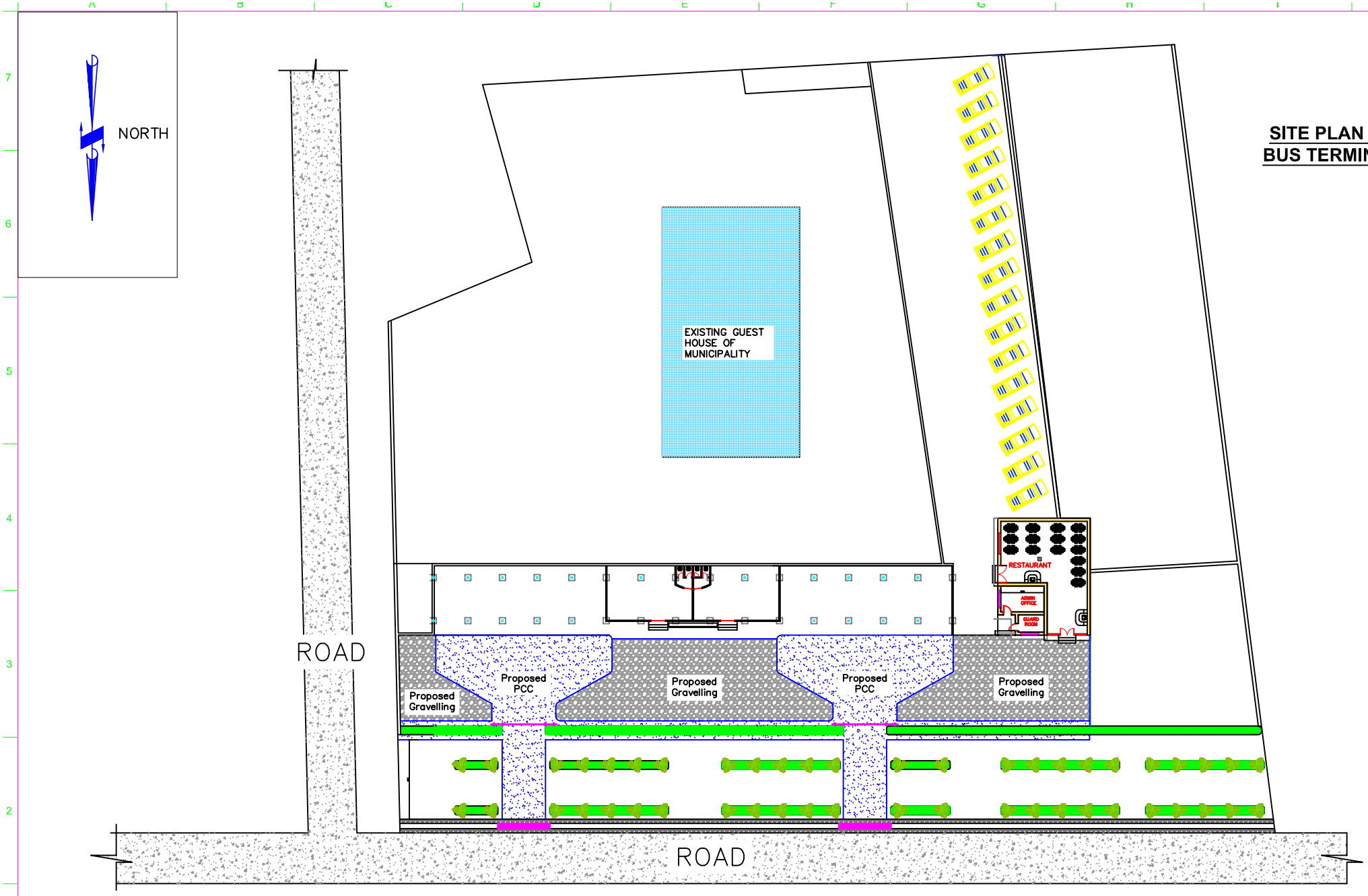
PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM		NAME	POSITION
		PROVINCE NAME: BALKH	SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 001		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
			CHECKED BY:		ENGINEERING DIRECTOR
			APPROVED BY:		PROJECT MANAGER

SITE PLAN OF BUS TERMINAL



PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM		NAME	POSITION
		PROVINCE NAME: BALKH	SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 002		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
			CHECKED BY:		ENGINEERING DIRECTOR
			APPROVED BY:		PROJECT MANAGER

SITE PLAN OF BUS TERMINAL



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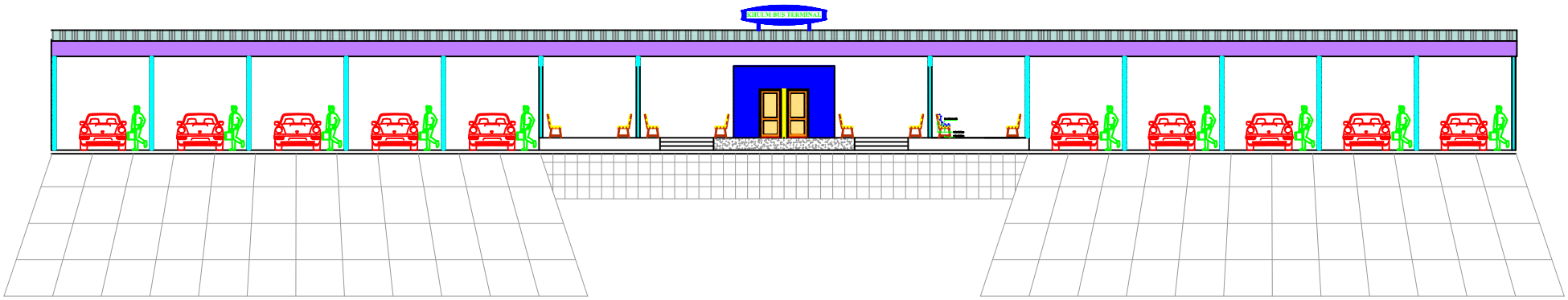
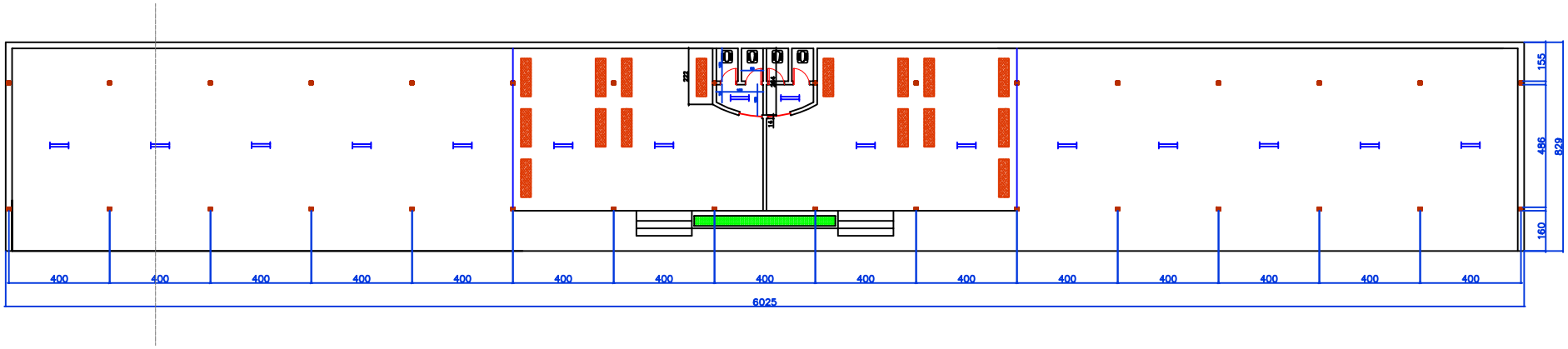
		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 003		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
			CHECKED BY:		ENGINEERING DIRECTOR
			APPROVED BY:		PROJECT MANAGER



ELEVATION VIEW



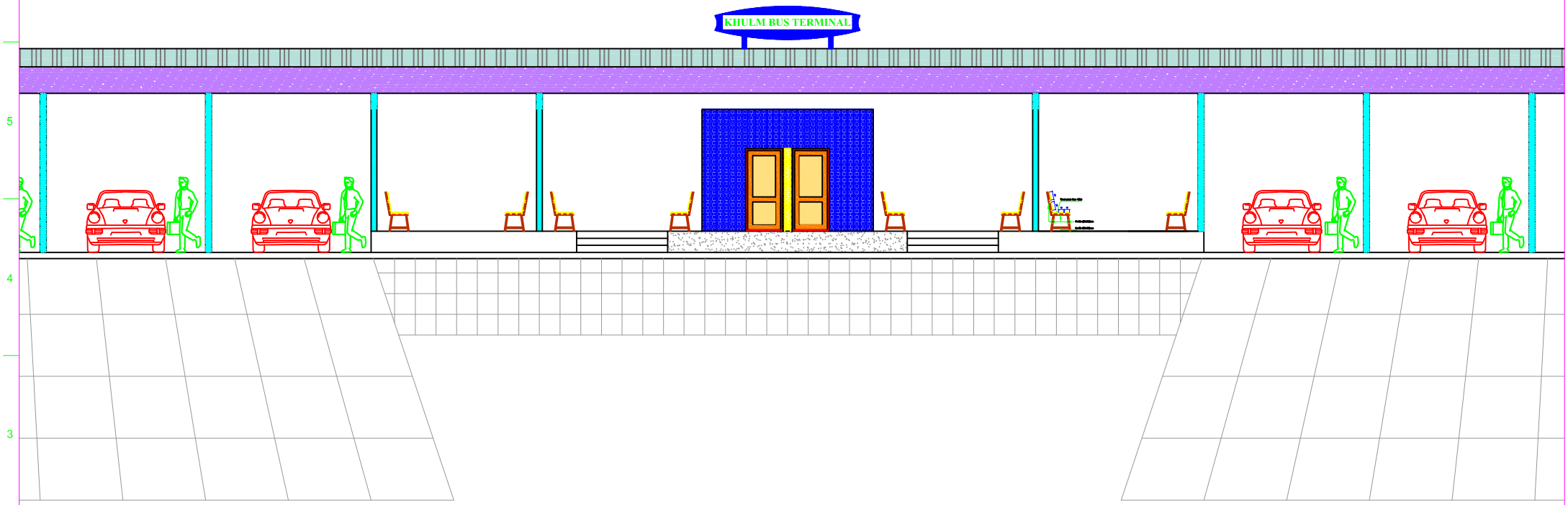
VEHICLE PARK PLAN

WAITING HALL PLAN

VEHICLE PARK PLAN

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM			
		PROVINCE NAME: BALKH			
		MUNICIPALITY OF KHULM			
SHEET REFERENCE NUMBER: 004		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT			

	NAME	POSITION
SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
DESIGNED BY:		ENGINEERING ADVISOR
REVIEWED BY:		MAYOR
CHECKED BY:		ENGINEERING DIRECTOR
APPROVED BY:		PROJECT MANAGER



ELEVATION VIEW

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		PROVINCE NAME: BALKH	SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 005		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
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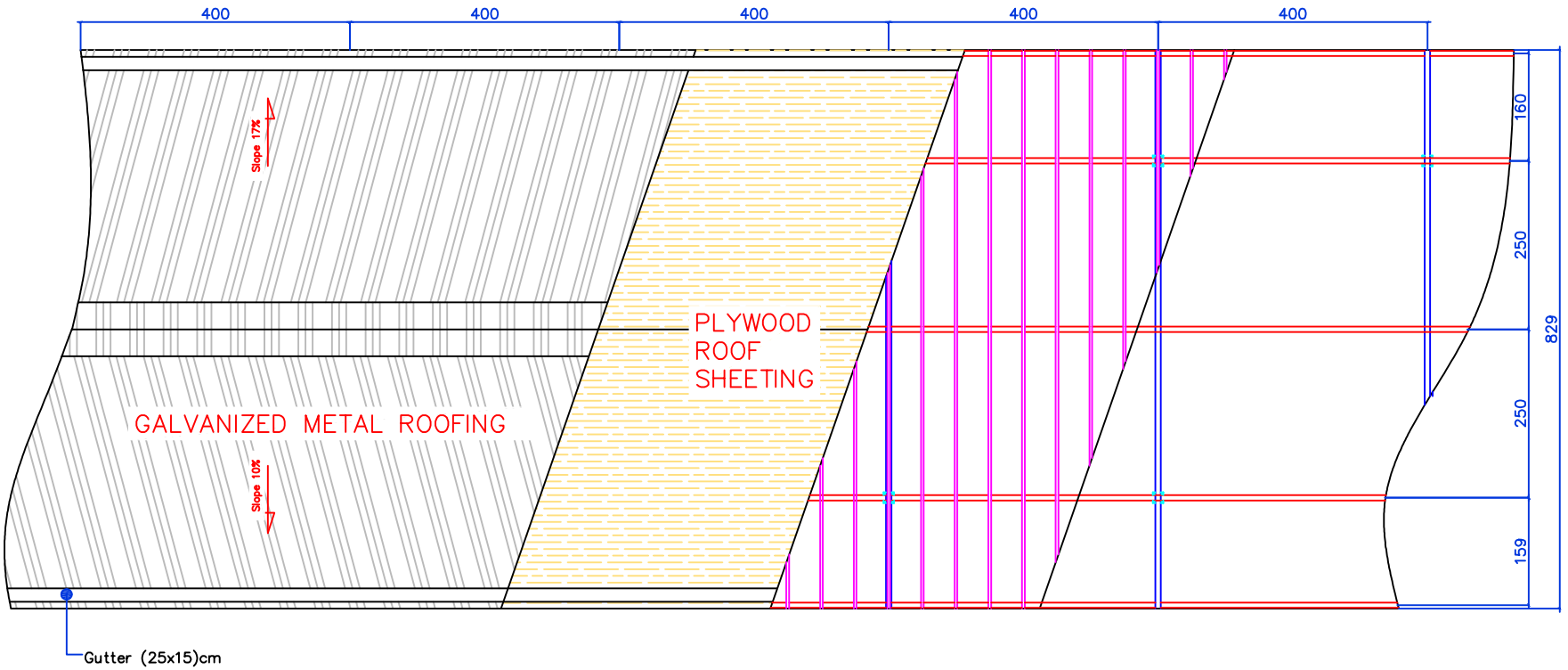

ROOF PLAN OF TRUSS

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM		NAME	POSITION
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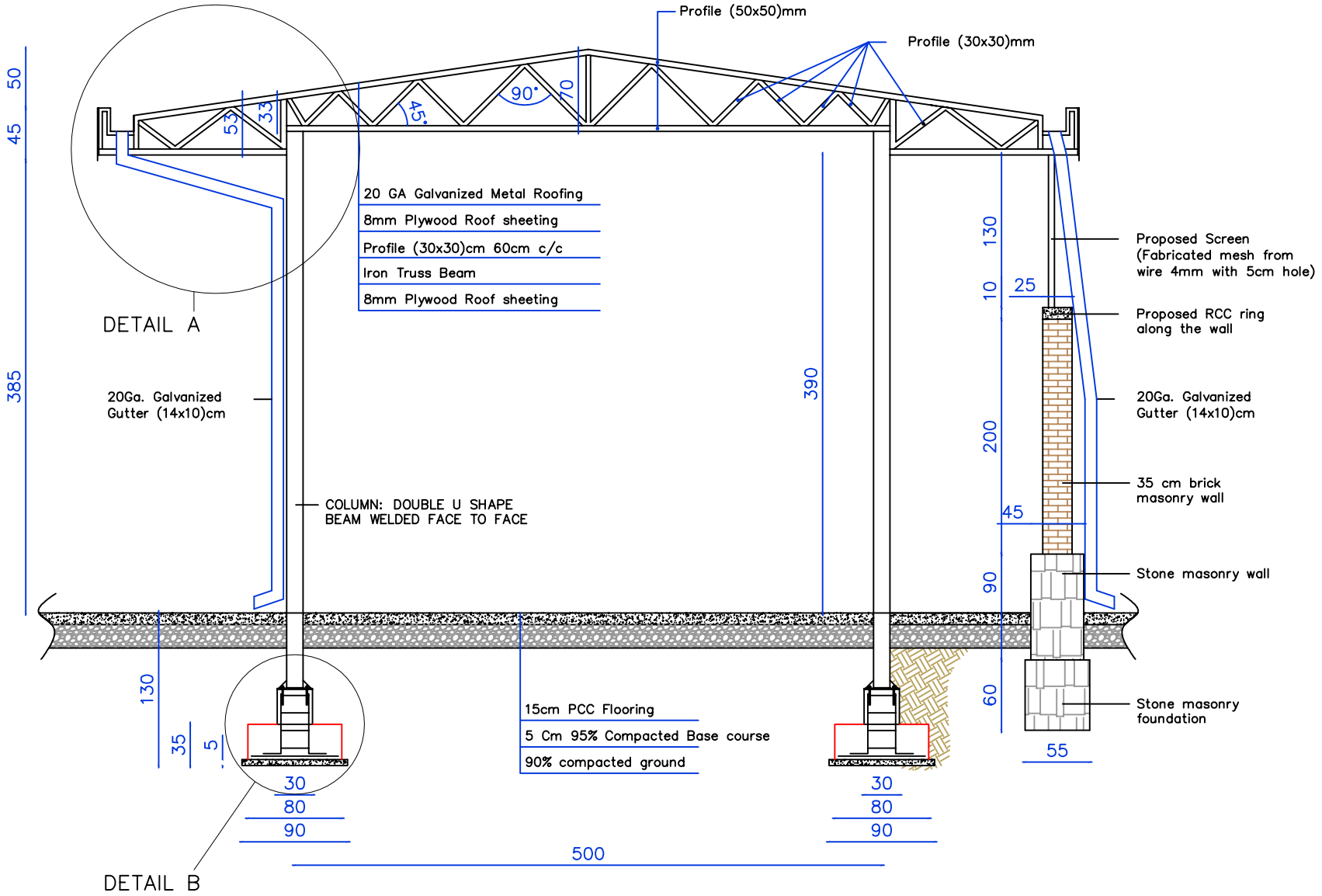
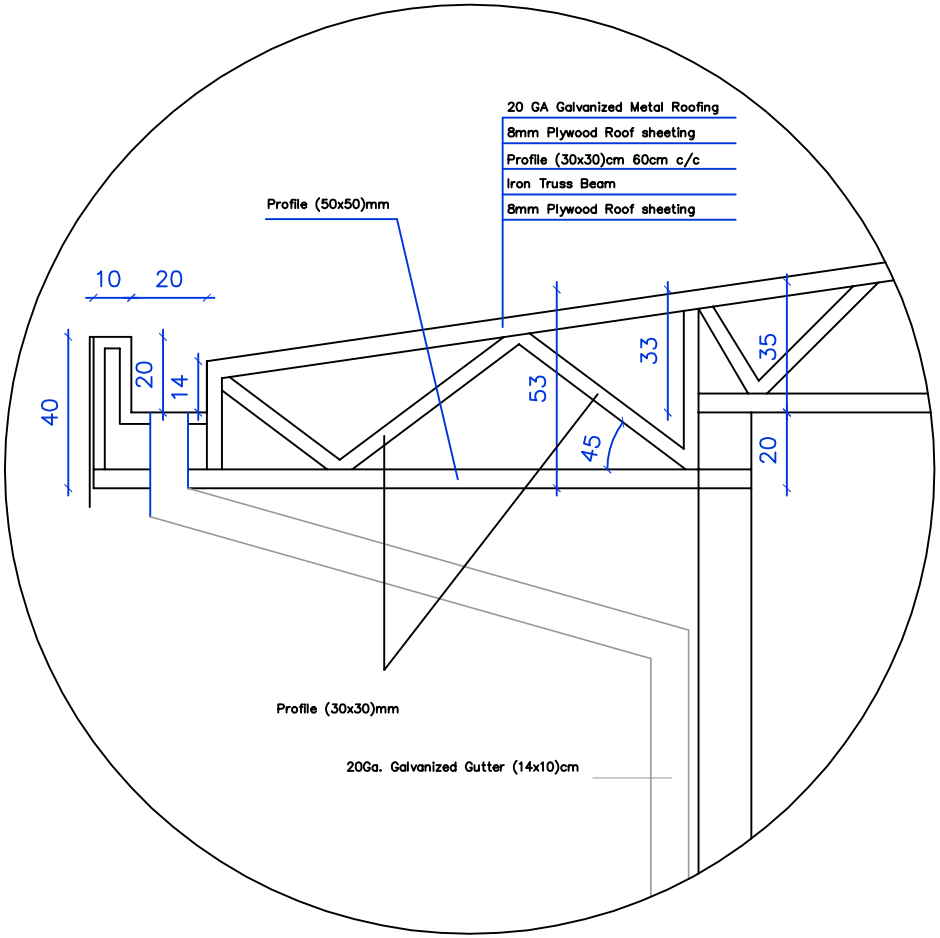
		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 006		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
			CHECKED BY:		ENGINEERING DIRECTOR
			APPROVED BY:		PROJECT MANAGER



CROSS SECTION OF A_A
(VEHICLE PARK)

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM			
		PROVINCE NAME: BALKH			
		MUNICIPALITY OF KHULM			
SHEET REFERENCE NUMBER: 007		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT			

	NAME	POSITION
SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
DESIGNED BY:		ENGINEERING ADVISOR
REVIEWED BY:		MAYOR
CHECKED BY:		ENGINEERING DIRECTOR
APPROVED BY:		PROJECT MANAGER



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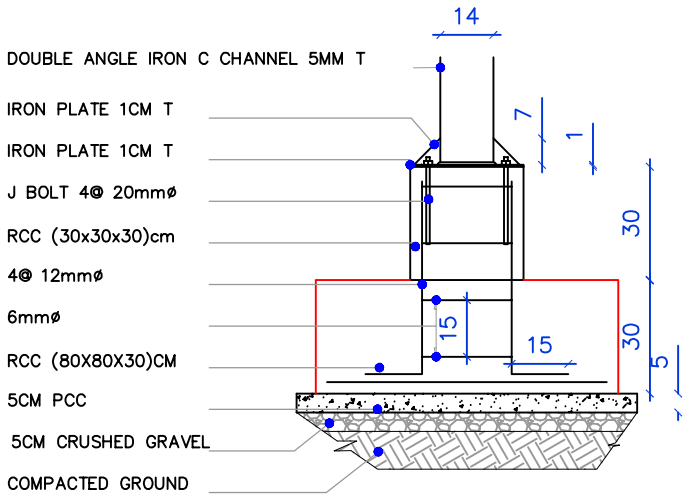
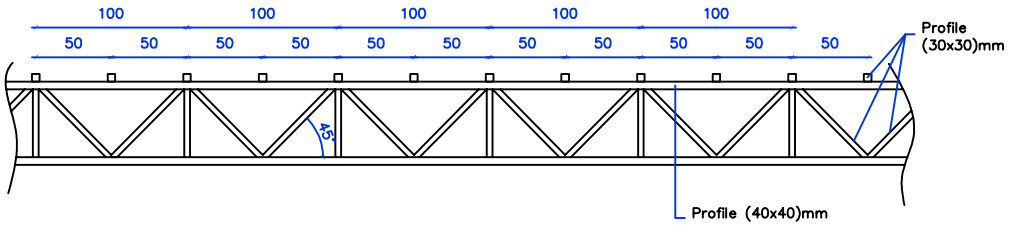


Detail B



DETAIL OF LONGITUDINAL FRAME

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM		NAME	POSITION
		PROVINCE NAME: BALKH	SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 008		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
			CHECKED BY:		ENGINEERING DIRECTOR
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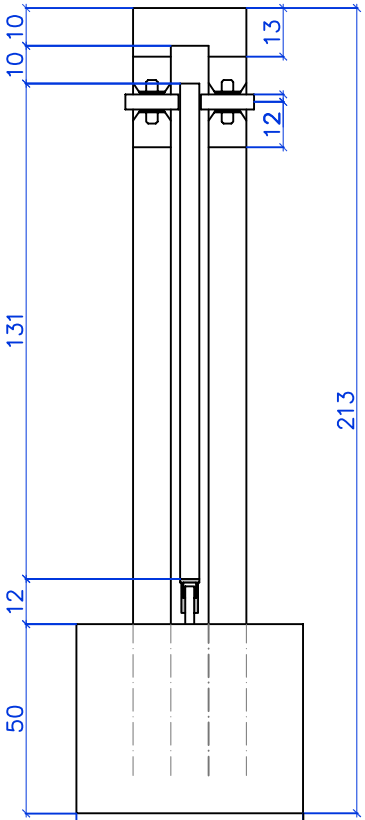
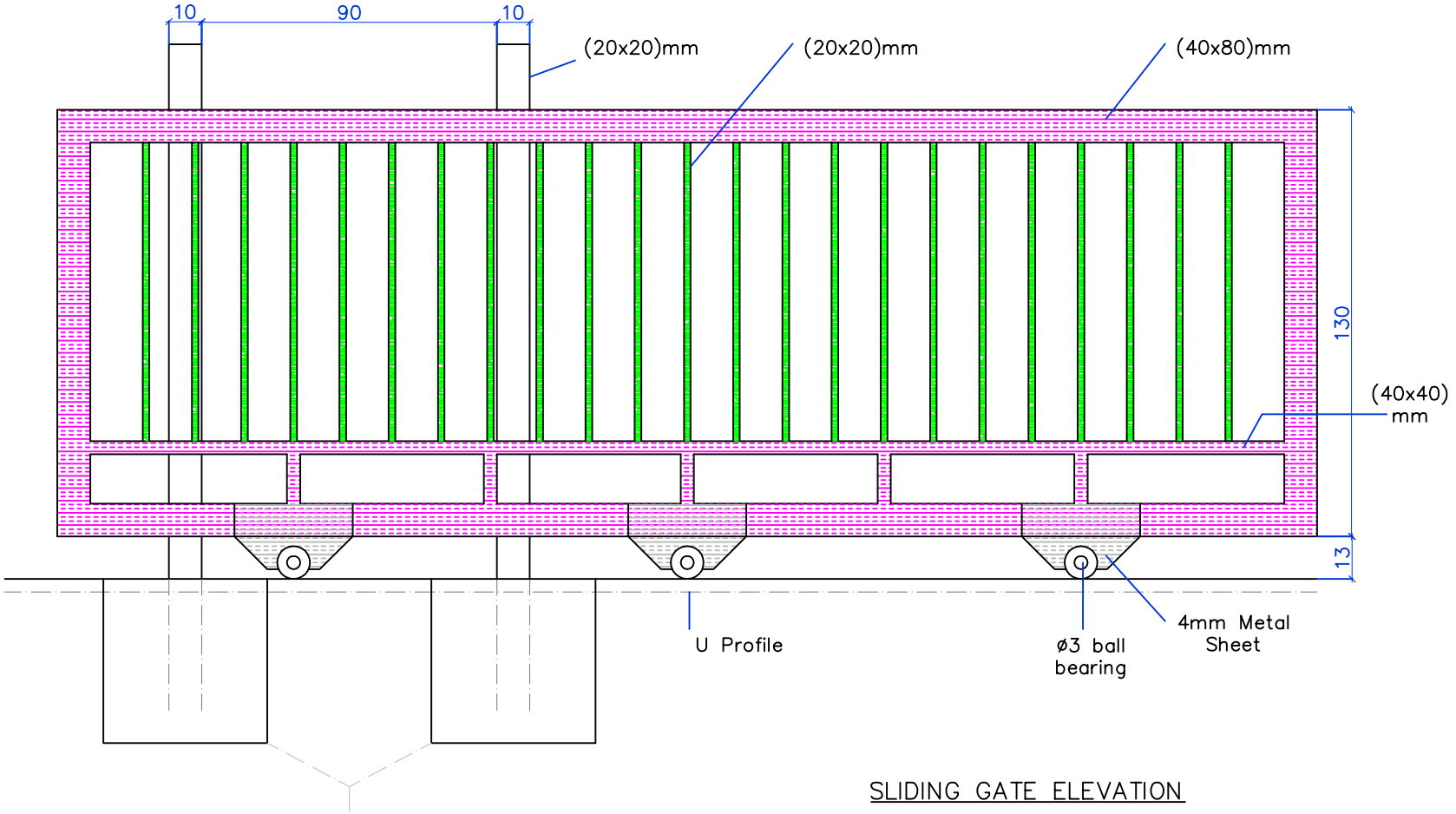
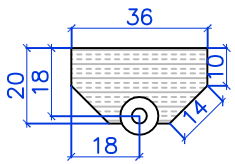


SLIDING GATE SECTION



SLIDING GATE ELEVATION



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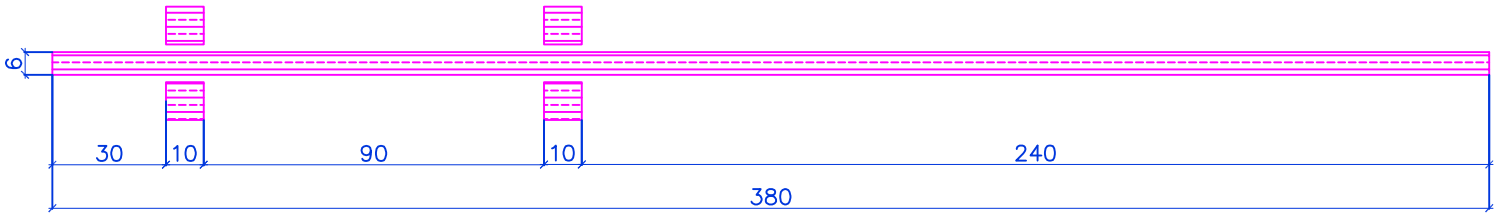

SLIDING GATE PLAN

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM		NAME	POSITION
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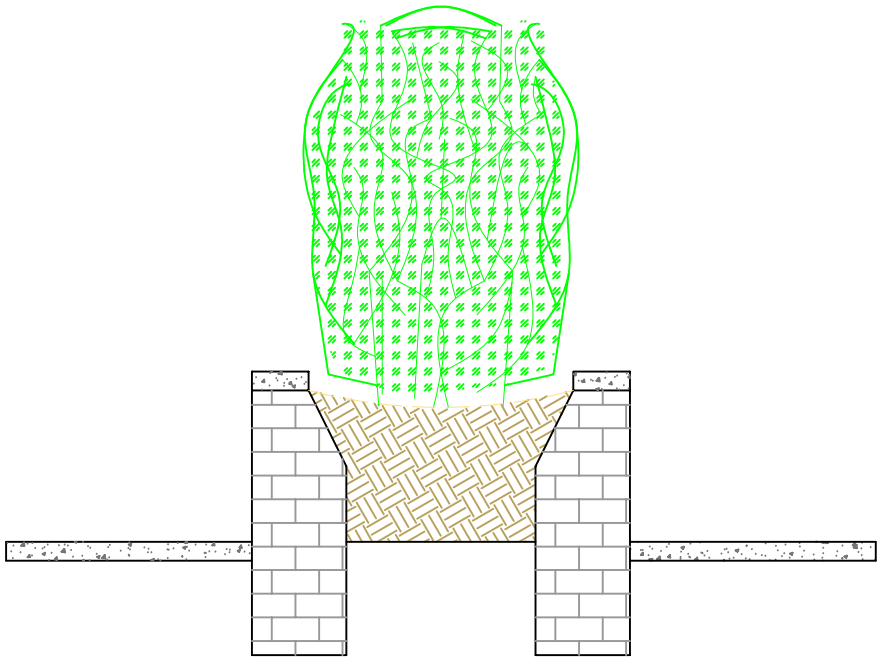
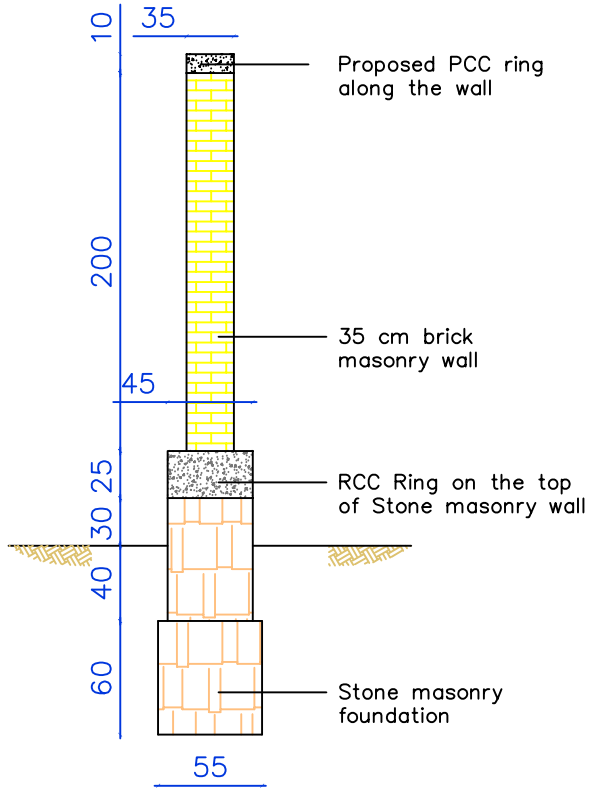
		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 009		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
			CHECKED BY:		ENGINEERING DIRECTOR
			APPROVED BY:		PROJECT MANAGER

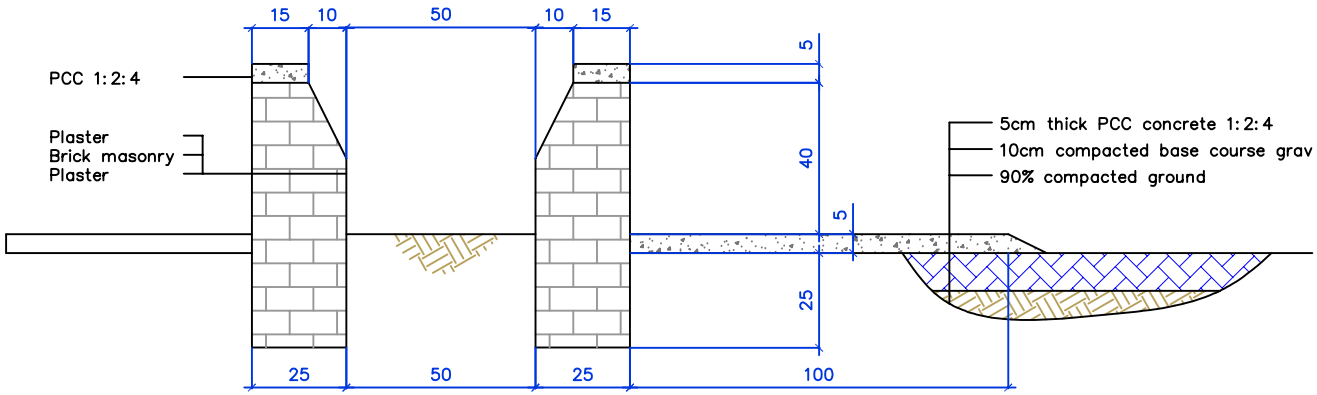


VASE DETAIL SECTION



BOUNDARY WALL SECTION

20 GA FLAT TYPE GALVANIZED METAL FLASHING



Note: Every 20m shall be ad 5cm construction Joint

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM		NAME	POSITION
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		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 010		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
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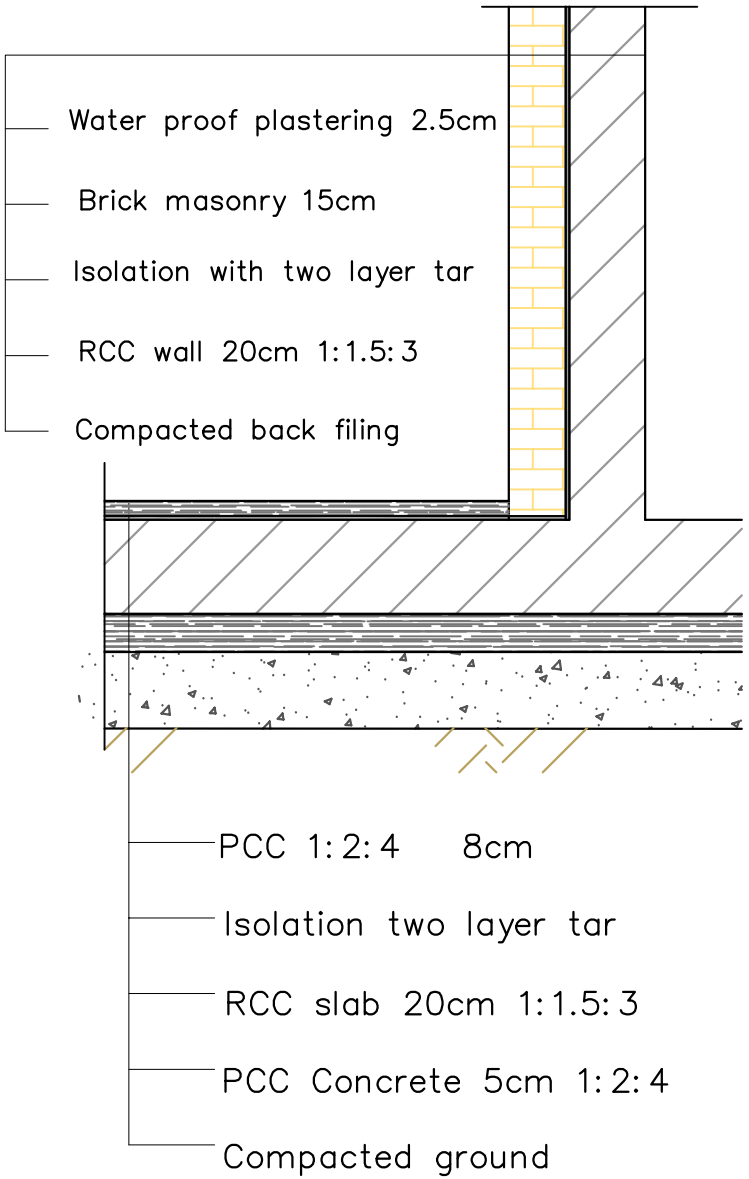

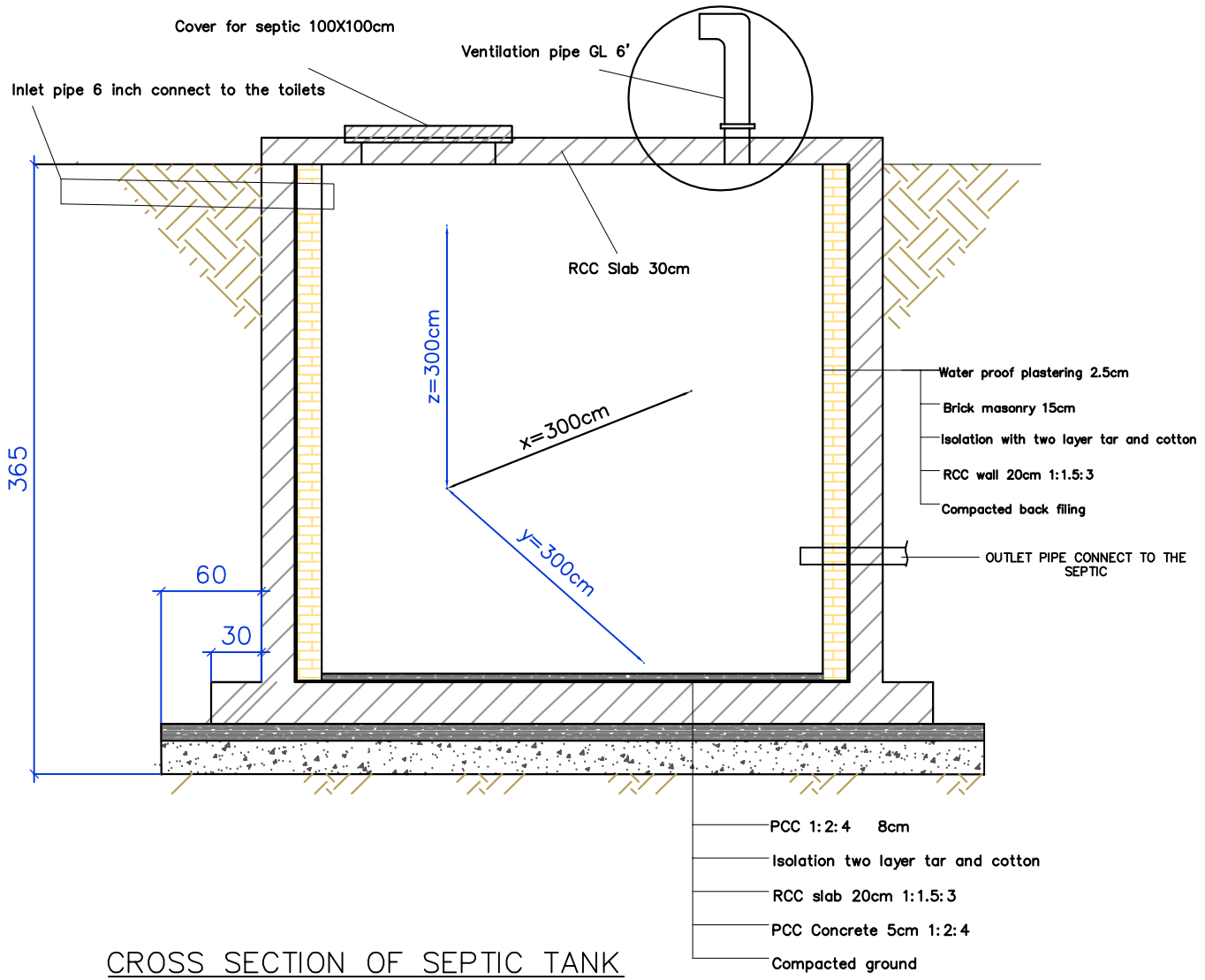

CROSS SECTION OF SEPTIC TANK

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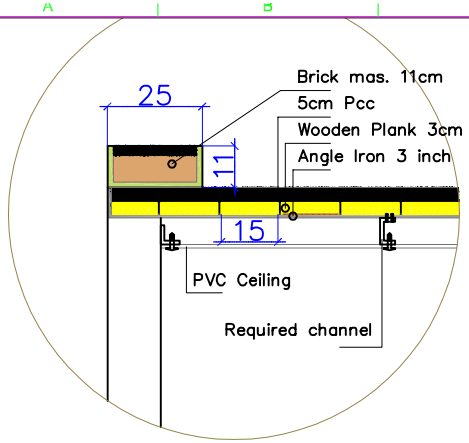
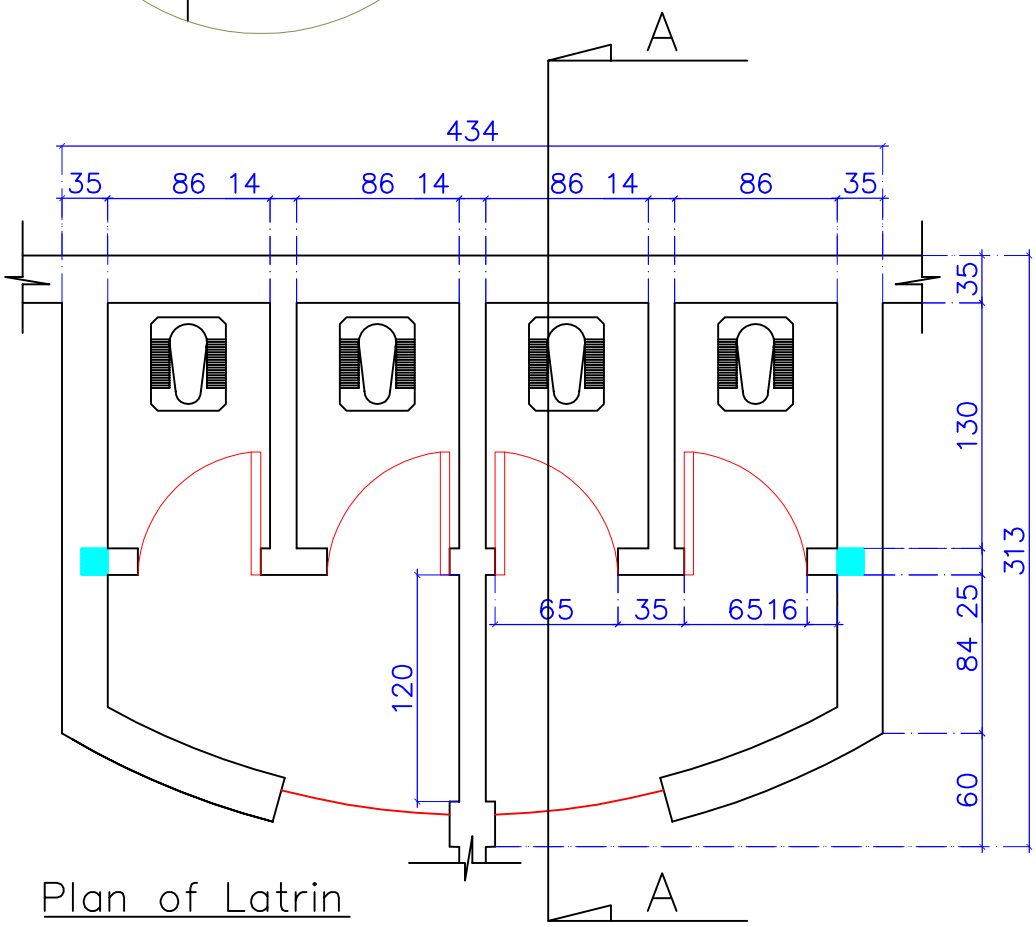
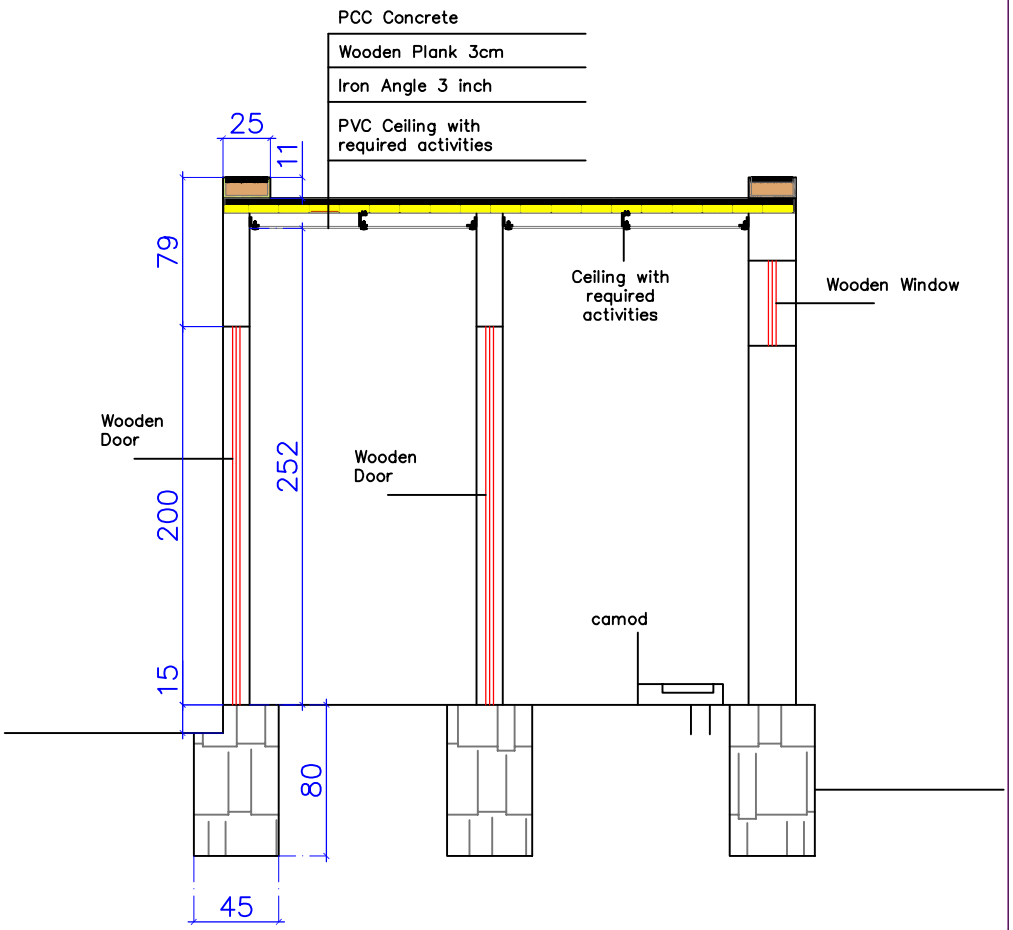
		PROVINCE NAME: BALKH	SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 011		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
			CHECKED BY:		ENGINEERING DIRECTOR
			APPROVED BY:		PROJECT MANAGER



Roof Detail



Plan of Latrin



Section A–A

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM		NAME	POSITION
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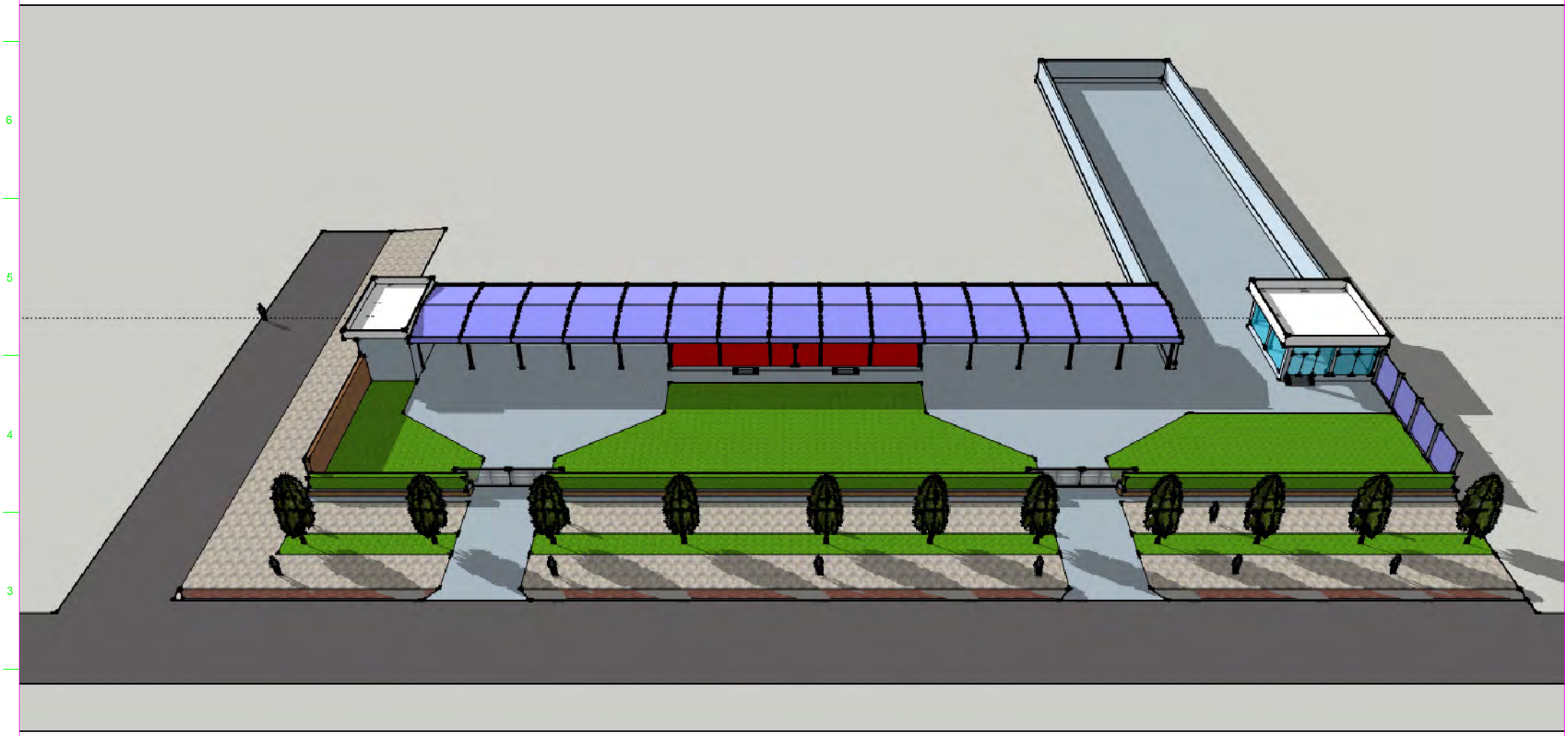
		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 012		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
			CHECKED BY:		ENGINEERING DIRECTOR
			APPROVED BY:		PROJECT MANAGER



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		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 013		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
			CHECKED BY:		ENGINEERING DIRECTOR
			APPROVED BY:		PROJECT MANAGER

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM			NAME	POSITION
		PROVINCE NAME: BALKH		SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
		MUNICIPALITY OF KHULM		DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: **014**		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT		REVIEWED BY:		MAYOR
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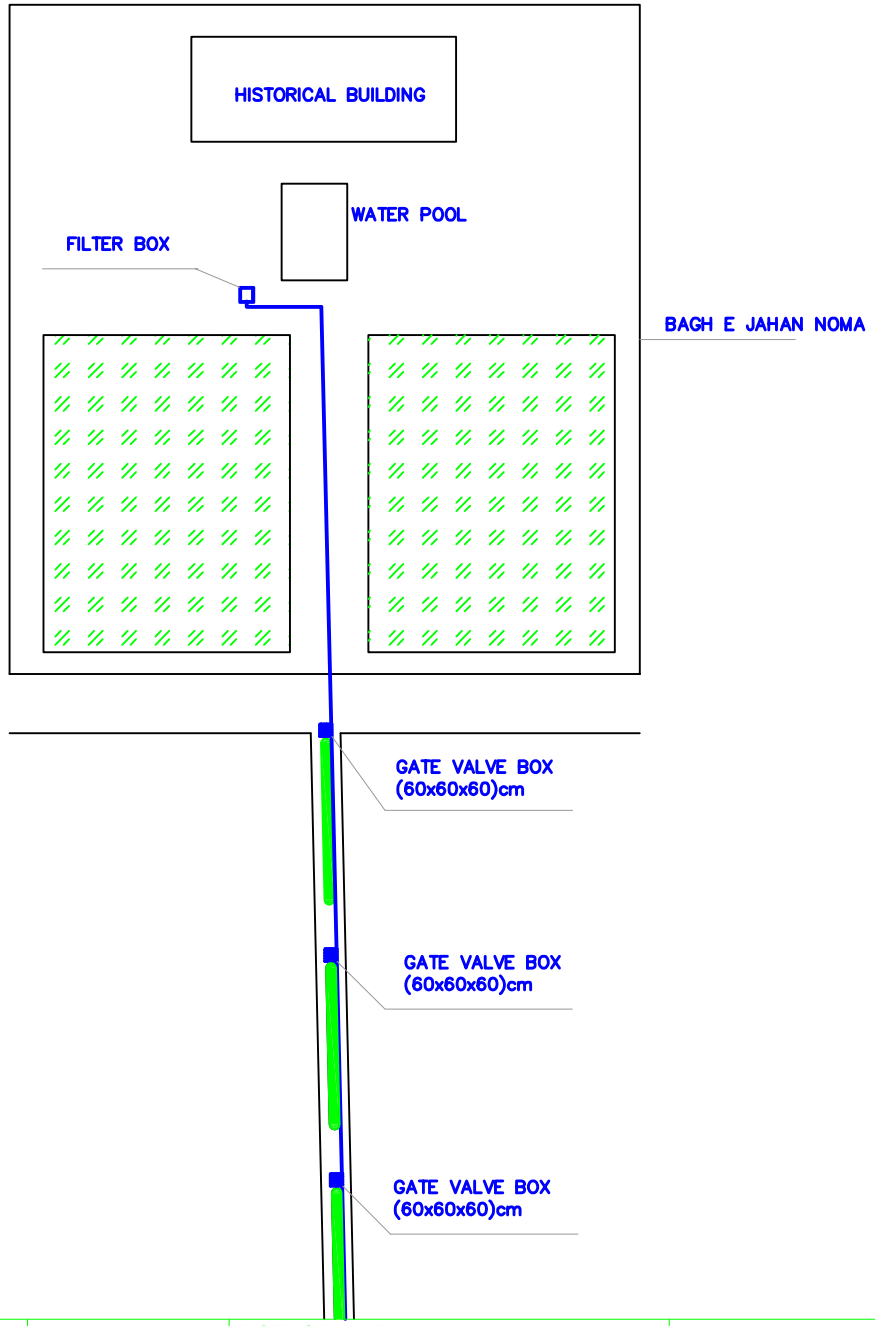
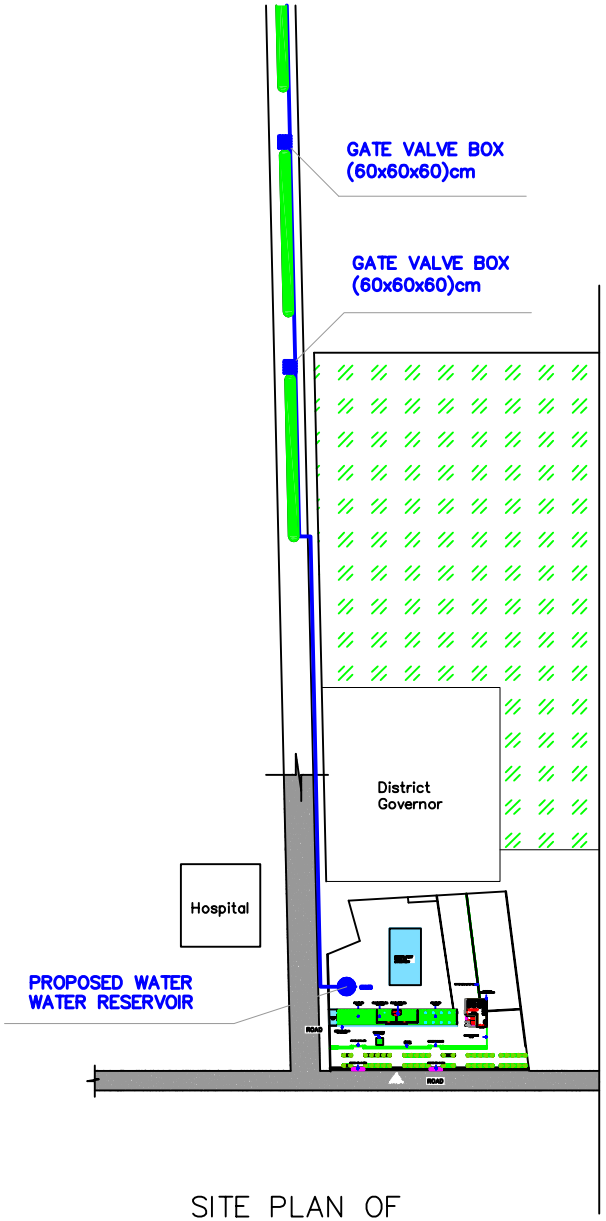
				APPROVED BY:		PROJECT MANAGER

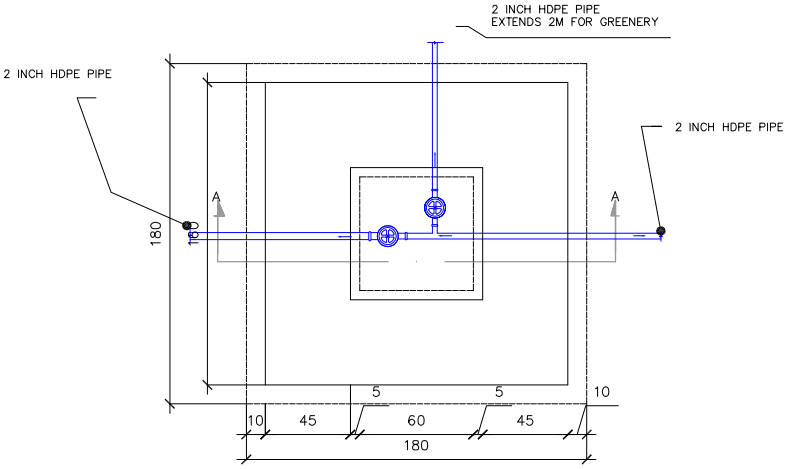




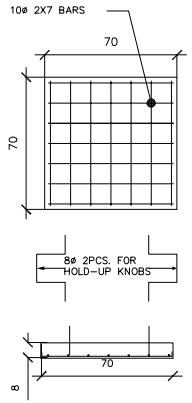
SITE PLAN OF
PIPE SKIM

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM			
		PROVINCE NAME: BALKH			
		MUNICIPALITY OF KHULM			
SHEET REFERENCE NUMBER: 015		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT			

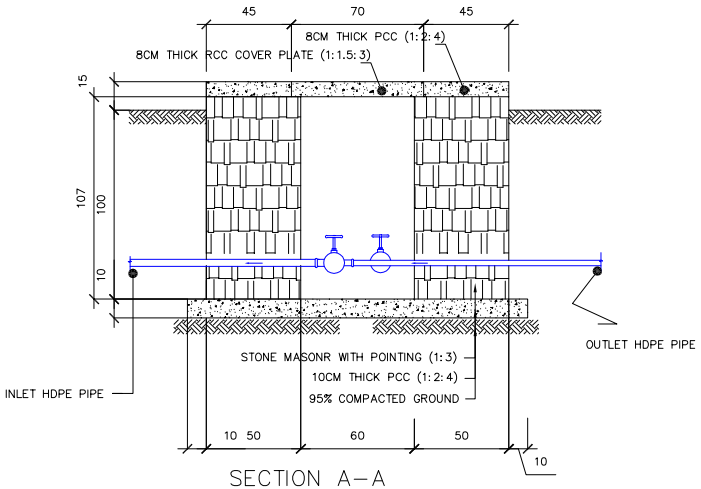
	NAME	POSITION
SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
DESIGNED BY:		ENGINEERING ADVISOR
REVIEWED BY:		MAYOR
CHECKED BY:		ENGINEERING DIRECTOR
APPROVED BY:		PROJECT MANAGER



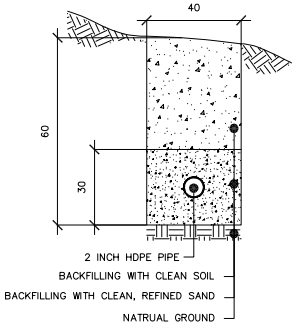
GATE VALVE BOX PLAN



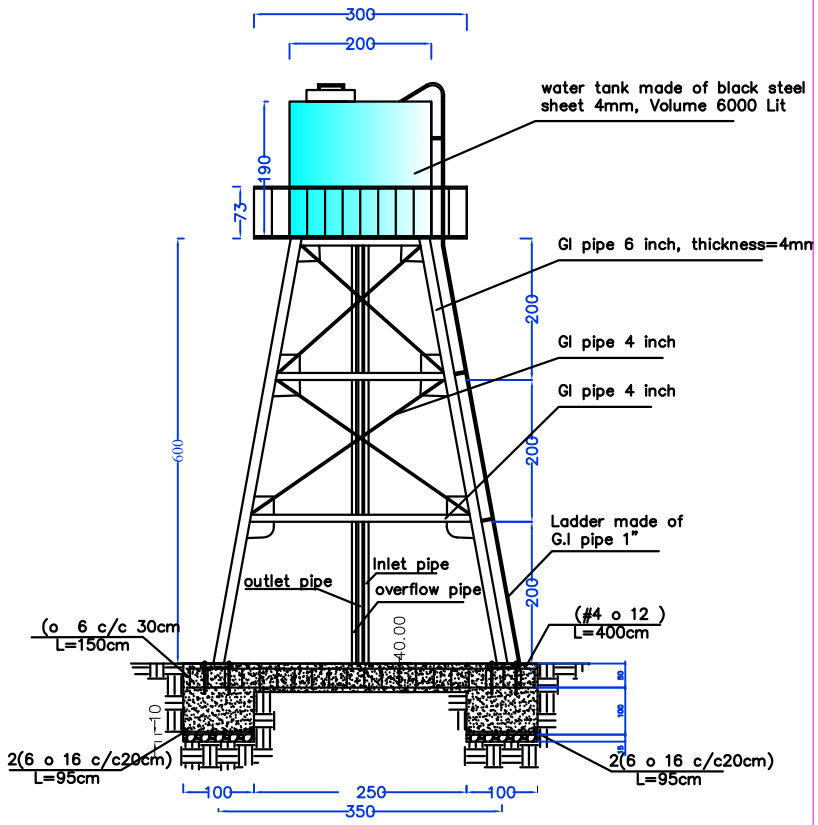
COVER PLATE
REINFORCEMENT DETAIL



SECTION A-A



TYPICAL CROSS SECTION FOR
INSTALLATION OF HDPE PIPE

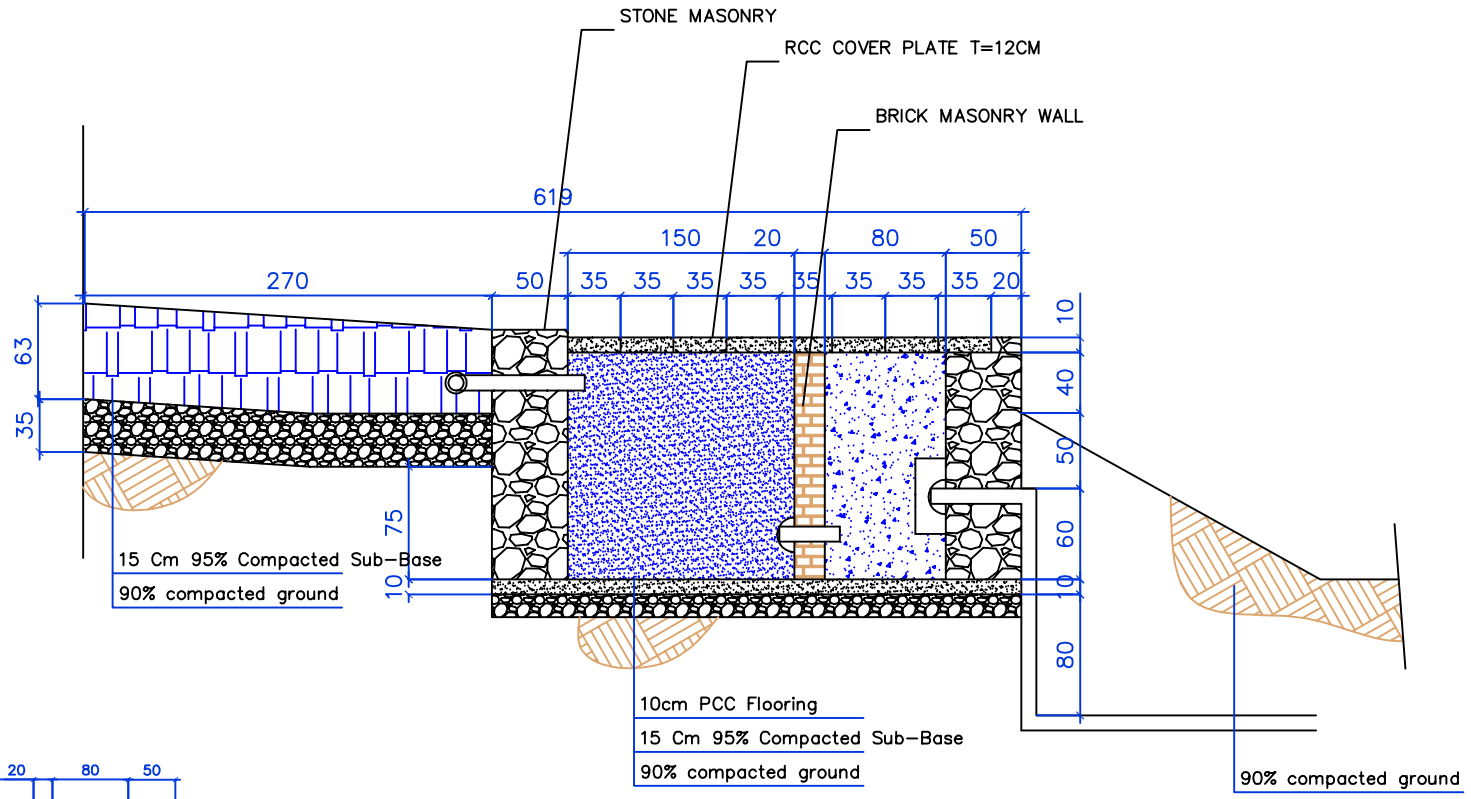


WATER RESERVOIR

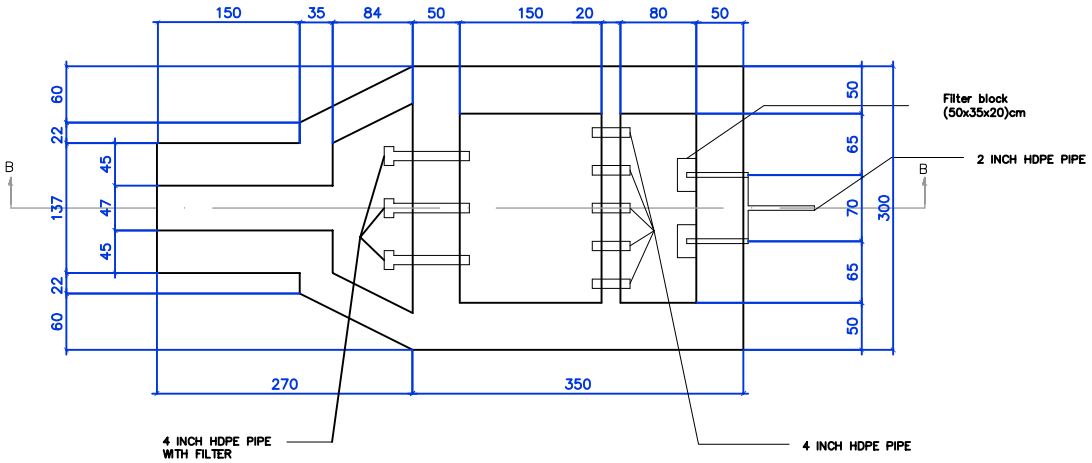
NOTES:

1-ALL DIMENSIONS SHOWN IN CM UNLESS OTHERWISE SPECIFIED.
2-95% COMPACTED IS REQUIRED UNDER THE PCC.
3-2.5CM CLEAR COVER MUST BE APPLIED TO ALL REINFORMCEMENTS.

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM		NAME	POSITION
		PROVINCE NAME: BALKH	SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
		MUNICIPALITY OF KHULM	DESIGNED BY:		ENGINEERING ADVISOR
SHEET REFERENCE NUMBER: 016		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT	REVIEWED BY:		MAYOR
			CHECKED BY:		ENGINEERING DIRECTOR
			APPROVED BY:		PROJECT MANAGER



SECTION B-B



PLAN OF FILTER BOX

PROJECT NUMBER: RUN-P-KHL-001	DATE: MAY, 09-2013	DISTRICT NAME: KHULM			
		PROVINCE NAME: BALKH			
		MUNICIPALITY OF KHULM			
SHEET REFERENCE NUMBER: 017		PROJECT NAME: CONSTRUCTION OF BUS TERMINAL PROJECCT			

	NAME	POSITION
SURVEYED BY:	[redacted]	ENGINEERING ADVISOR
DESIGNED BY:		ENGINEERING ADVISOR
REVIEWED BY:		MAYOR
CHECKED BY:		ENGINEERING DIRECTOR
APPROVED BY:		PROJECT MANAGER

APPENDIX B – KHULUM BUS TERMINAL CONSTRUCTION BILL OF QUANTITY

RAMP-UP-NORTH

RUN-P-KHL-001 Construction of Bus Terminal

Bill of Quantities

Project Name: Construction of Bus Terminal — Date: May/19/2013

S/No.	Description	Quantity	Unit	Unit Price (AFA)	Total Price Each Item (AFA)	Remarks
A	**General Work**				AFA 0.00	
1	Mobilization: Includes establishment of sub office for the sub-project, mobilizing of technical staff and equipment.	1.00	Lump sum		AFA 0.00	
2	Demolition of existing wall L=60m, H= 2.5m, Leveling and compaction of construction area, the sub contractor shall remove all the unsuitable materials and compaction as per drawings and satisfaction of Engineer	1.00	Lump sum		AFA 0.00	
3	Graveling and compacting of in front of bus terminal and waiting hall as it is shown in the drawings, the sub contractor shall lay 15cm mixed crushed gravel and compacted 95% as per instruction of Engineer	90.00	Cum		AFA 0.00	
4	Plain cement concrete 15cm (PCC, M:150), in front side of waiting hall and canopy, with proper curing, beast quality cement, clean coarse, fine sand & gravel mixing the aggregates for steps, according the specification as per design, drawings, specifications & satisfaction of Engineer	75.00	Cum		AFA 0.00	
5	Construction of vase beside the road based on the drawing, the activities are includes: excavation of foundation , brick masonry with (high quality and good shape brick to have good view and pointing) Plastering inside of vase and PCC on the top of brick masonry. All the activities shall be as per drawing and satisfaction of Engineer.	80.00	m		AFA 0.00	
6	Manufacture and installation of sliding gates (1.45x7.6) meter. Work shall be done with all required activities such as supply materials and proper welding including anti rust and 3 coats painting as per drawings the color will be selected by municipality/RUN Designated Engineer	2.00	each		AFA 0.00	
B	**Boundary wall**				AFA 0.00	
1	Excavation of foundation of boundary wall of (parking lot) in all type of soil as per design, drawings, specifications & satisfaction of Engineer	36.48	Cum		AFA 0.00	
2	Stone masonry of foundation and wall, 1:4 with sand and cement mortar and also pointing two side of stone masonry wall with 1:3, with cement and sand mortar good quality as per design, drawing and satisfaction of Engineer.	54.34	Cum		AFA 0.00	

RAMP-UP-NORTH

RUN-P-KHL-001 Construction of Bus Terminal

Bill of Quantities

Project Name: Construction of Bus Terminal — Date: May/19/2013

S/No.	Description	Quantity	Unit	Unit Price (AFA)	Total Price Each Item (AFA)	Remarks
3	RCC (M:200) for Ring on the top of stone masonry wall including shuttering and curing, beast quality cement clean coarse sand and gravel as per design, drawing, specifications & satisfaction of Enginee	10.64	Cum		AFA 0.00	
4	Brick masonry, (M 1:4) with cement & sand mortar, good quality as per design, drawing and satisfaction of Engineer.	53.20	Cum		AFA 0.00	
5	Plain cement concrete 10cm (PCC, M:150), on the top of brick masonry wall including shuttering and curing, best quality of cement, clean sand and crushed aggregate according drawings, specifications & satisfaction of Engineer.	2.66	Cum		AFA 0.00	
6	Plaster, (1:4) two site of the boundary wall (12mm - 20mm) thick with good quality of cement sand mortar	182.40	Sqm		AFA 0.00	
7	Painting 100 plastic (minimum 3 coats)	182.00	Sqm		AFA 0.00	
C	**Construction of Waiting Hall and Bus Station Canopy**				AFA 0.00	
1	Excavation of foundation in all type of soil as per design, drawings, specifications & satisfaction of Enginee	25.00	Cum		AFA 0.00	
2	Back filling and Compaction of soil in every 20cm layers of area as per design, drawing	64.00	Cum		AFA 0.00	
3	Gravel 5cm crushed gravel (base course crashed material) paving and compacting, in rooms and around the building with all required activities.	25.50	Cum		AFA 0.00	

RAMP-UP-NORTH

RUN-P-KHL-001 Construction of Bus Terminal

Bill of Quantities

Project Name: Construction of Bus Terminal Date: May/19/2013

S/No.	Description	Quantity	Unit	Unit Price (AFA)	Total Price Each Item (AFA)	Remarks
4	Plain cement 15cm (PCC, M:150), in foundations and rooms, with proper curing, beast quality cement, clean coarse, fine sand & gravel mixing the aggregates for steps, according the specification as per design, drawings, specifications.	77.00	Cum		AFA 0.00	
5	RCC (1:1.5:3, M:200) for Block Foundation and Rings including shuttering and curing, beast quality cement clean coarse sand and gravel as per design, drawing, specifications	21.00	Cum		AFA 0.00	
6	Stone masonry of foundation and wall, 1:4 with sand and cement mortar including pointing two side of stone masonry wall with 1:3 cement and sand mortar good quality as per design, drawing. Possible (sub contractor may find some good shape of stone from the demolished wall)	40.00	Cum		AFA 0.00	
7	Brick masonry of waiting hall, with cement & sand mortar, good quality as per design, drawing	42.00	Cum		AFA 0.00	
8	Plastering with (M1:4) for Interior and exterior walls (12 to 20mm the) cement sand mortar as per specification	350.00	Sqm		AFA 0.00	
9	Supply and production of benches, production shall be from iron profile 1inch and 3cm wooden panel with all required activities.	30.00	m		AFA 0.00	
10	Supply and installation of double U shape Iron beam welded face to face for column (140x140x5)mm size. The colon shall be proper welded face to face and 3 coat antirust painted. Installation shall be according design and satisfaction of Engineer.	32.00	each		AFA 0.00	
11	Supply & installation of Iron roof main truss (No=16 x Length=8.3 m), truss shall be proper welded and 3 coat antirust painted before installation and all activity shall be as per drawing and satisfaction of engineeı	133.00	m		AFA 0.00	
12	Supply & installation of Iron roof longitudinal truss (No 3 x L=60 m), the truss shall be proper welded and 3 coat antirust painted before installation and all activity shall be as per drawing and satisfaction of engineeı	180.00	m		AFA 0.00	

RAMP-UP-NORTH

RUN-P-KHL-001 Construction of Bus Terminal

Bill of Quantities

Project Name: Construction of Bus Terminal Date: May/19/2013

S/No.	Description	Quantity	Unit	Unit Price (AFA)	Total Price Each Item (AFA)	Remarks
13	Supply & installation of Iron roof truss supporter member or bearing (30x30mm)profile 50cm c/c, shall proper welded and 3 coat antirust painted.	1.00	Lump sum		AFA 0.00	
14	Supply & installation of Wooden Planks on truss, 8mm Plywood.	606.00	Sqm		AFA 0.00	
15	Supply & installation of Galvanized Metal roof, corrugated (gauge 24 Gal iron sheet)	606.00	Sqm		AFA 0.00	
16	Supply & inst. Gutters around the roof (GI sheet 24 gage)	120.00	m		AFA 0.00	
17	Supply & installation of Down pipe gutters, (GI sheet 24 gage, Nawae Khasi)	84.00	m		AFA 0.00	
18	Ceiling works: Installation of PVC board for ceiling of the waiting hall and canopies, 8mm water resist PVC board shall install with canals to the iron frames and glass wool shall be lay on the top of the PVC board, as per drawing and satisfaction of engineer.	540.00	Sqm		AFA 0.00	
19	Installation of screen: Screen net shall fixed with 2inch supported posts on the top of wall, the post shall be fixed inside the concrete on the top of wall and welded to the frame of the truss, the distance of posts shall be in two meter and the fabricated mesh from wire 4mm and 5cm hole shall install to the supported 2inch post	120.00	Sqm		AFA 0.00	
20	Wall painting interior and exterior, (100% plastic).Three-coats with filling by plastic emulsion beast quality, as per specifications & the satisfaction of Engineer	560.00	Sqm		AFA 0.00	
21	Terrazzo tile fixing(2.5x30x30)cm for floor and 10cm (paizara), at waiting hall floor. The work shall be done with best quality of mosaic and mortar as per specifications and the satisfaction of Engineer	130.00	Sqm		AFA 0.00	

RAMP-UP-NORTH

RUN-P-KHL-001 Construction of Bus Terminal

Bill of Quantities

Project Name: Construction of Bus Terminal Date: May/19/2013

S/No.	Description	Quantity	Unit	Unit Price (AFA)	Total Price Each Item (AFA)	Remarks
22	Supply & installation of Fluorescent light fixture 1(2x40)w surface mounted, (1x60)w, switches, sockets distribution panel board with all necessary equipment, copper wire (2x1.5 for lights, 2x2.5 for sockets) and cable connect distribution panel to the main cable all work shall be done as per requirement drawing and satisfaction of engineer.	1.00	Lump sum		AFA 0.00	
D	**Construction of Latrine**				AFA 0.00	
1	Excavation of foundation in all type of soil as per design, drawings, specifications & satisfaction of Enginee	11.00	Cum		AFA 0.00	
2	Stone masonry of foundation and wall, 1:4 with sand and cement mortar. The sub contractor could use the good shape of stone from the demolished wall and also pointing two side of stone masonry wall with 1:3 cement and sand mortar good quality as per design, drawing and satisfaction of Engineer	11.00	Cum		AFA 0.00	
3	Brick masonry of toilets with cement & sand mortar, good quality as per design, drawing and satisfaction of Engineer.	13.00	Cum		AFA 0.00	
4	Plaster,(1:4) Interior and exterior walls(12 to 20mm the) cement sand mortar as per specifications and the satisfaction of Engineer	150.00	Sqm		AFA 0.00	
5	Supply & installation of Glass, 4mm with wooden strip fixed at windows & doors	1.00	Sqm		AFA 0.00	
6	Roofing works: shall use 2 inches angle iron, 60cm c/c, 3cm wooden board and 5cm PCC on the top of boards. The angle iron shall be welded with 1 inch supported angle iron in distance of 1.5m	10.00	Sqm		AFA 0.00	
7	Manufacture & installation of Doors in toilets (Ø12cm best quality Russian Khar wood frame with ironware and use of high quality Plywood plank), manufacture shall be in a very smooth and high position, as per specifications and the satisfaction of Engineer.	12.00	Sqm		AFA 0.00	

RAMP-UP-NORTH

RUN-P-KHL-001 Construction of Bus Terminal

Bill of Quantities

Project Name: Construction of Bus Terminal Date: May/19/2013

S/No.	Description	Quantity	Unit	Unit Price (AFA)	Total Price Each Item (AFA)	Remarks
8	Manufacture & installation of Windows small & big size, main building and bath room (Ø8cm best quality Russian Khar wood with ironware), manufacture shall be in a very smooth and high position, as per specifications and the satisfaction of Engineer	1.00	Sqm		AFA 0.00	
9	Ceiling works: Installation of PVC board for ceiling toilets, 8mm water resist PVC board shall install with canals to the iron frames and glass wool shall be lay on the top of the PVC board, as per drawing and satisfaction of engineer.	10.00	Sqm		AFA 0.00	
10	Oil painting of doors and windows 3 coats best quality as per specification & the satisfaction of Enginee	12.00	Sqm		AFA 0.00	
11	Supply & inst, Water supply, (installation of one PVC tanker 2000 Liter and connection to the main pipe) & sewer sys, and furniture for toilet, with required sanitary equipment for Ozoo, including floor toilet, tap, sink, as per requirements, & satisfaction of Engineer	4.00	Lump sum		AFA 0.00	
12	Supply & inst. Tile fixing for bathroom walls, best quality works, as per specifications and the satisfaction of Engineer.	48.00	Sqm		AFA 0.00	
13	Supply & inst. Ceramic tile fixing for floor of bathroom, best quality works as per specifications and satisfaction of Engineer	13.00	Sqm		AFA 0.00	
E	**Construction of Septic Tank**				AFA 0.00	
1	Excavation of foundation in all type of soil as per design, drawings, specifications & satisfaction of Engineer	250.00	Cum		AFA 0.00	
2	Back filling and Compaction of soil in every 20cm layers of excavated area as per design, drawing, specifications & the satisfaction of Engineer	45.00	Sqm		AFA 0.00	
3	Brick masonry, (M:200) with cement & sand mortar, good quality as per design, drawing and satisfaction of Engineer.	4.40	Cum		AFA 0.00	
4	Plaster,(1:4) Interior and exterior walls(12 to 20mm the) cement sand mortar as per specifications and the satisfaction of Engineer	36.00	Sqm		AFA 0.00	
5	Dump proofing of septic tank with two layer tar and one layer cottor	45.00	Sqm		AFA 0.00	

RAMP-UP-NORTH

RUN-P-KHL-001 Construction of Bus Terminal

Bill of Quantities

Project Name: Construction of Bus Terminal — Date: May/19/2013

S/No.	Description	Quantity	Unit	Unit Price (AFA)	Total Price Each Item (AFA)	Remarks
6	Plain cement 8cm (PCC, M:100), in foundations, with proper curing, beast quality cement, clean coarse, fine sand & gravel mixing the aggregates for steps, according the specification as per design, drawings, specifications & satisfaction of Engineer	1.00	Cum		AFA 0.00	
7	RCC (M:250) of septic tank and cover, including shuttering and curing, beast quality cement clean coarse sand and gravel as per design, drawing, specifications & satisfaction of Engineer	13.00	Cum		AFA 0.00	
8	Sewerage system, connect the sewer from the toilets to the septic tanks 20m long with 4inch High quality PVC Pipe including all fittings.	1.00	Lump sum		AFA 0.00	
F	**Construction of water supply system**				AFA 0.00	
F1	**CONSTRUCTION OF BOX FILTER**					
1	Excavation of foundation of filter box as per drawing.	cum	27.0		0	
2	Boulder under the all PCC work of the wall and other area as per drawings, including compaction	cum	4.0		0	
3	Stone masonry with pointing for filter and Typical Drainage: Stone masonry as per drawings, the mortar mix proportion is 1:4. Overlap and bond shall be ensured in stone masonry. Rounds, small or very big size of stones are not allowed to be used in stone masonry. Lay stones in running bond. Completely fill joints between stones with mortar. Form bed joints of a thick layer of mortar slightly furrowed or battered; bevel or pyramid the bed mortar. Place stones carefully without disturbing stones previously laid. Dry or butt joints will not be permitted. Carry stone masonry up level and plumb. Changes in coursing or bonding after the work is started will not be permitted. Do not carry one section of the walls up in advance of the others. Step back unfinished work for joining with new work. Stones shall not be placed vertically unless the size of bottom is more than 20cm. Correct bond shall be ensured in stone masonry as per satisfaction of RUN Engineer.	cum	9.0		0	

RAMP-UP-NORTH

RUN-P-KHL-001 Construction of Bus Terminal

Bill of Quantities

Project Name: Construction of Bus Terminal | Date: May/19/2013

S/No.	Description	Quantity	Unit	Unit Price (AFA)	Total Price Each Item (AFA)	Remarks
4	Casting of PCC for under and over the walls and inside of drainage as per drawings, Plain concrete work of (1:2:4) proportion (M-150); best quality cement, clean coarse sand and crashed gravel chips including screening of chips, mixing the aggregates, placing, curing at least for 14 days	cum	2.0		0	
5	Reinforced Concrete work of (1:1.5:3) proportion (M-200); best quality steel, cement, clean course sand and gravel chips including screening of chips, mixing the aggregates, placing, curing at least for 28 days. This item will use for the slap over the filter, cover plate	cum	1.0		0	
6	Water proof Plaster for interior stone masonry works of drainage and construction of spring with 1:4 cement: sand mortar with at lest 15 mm thickness. The plaster should include the water proof plaster admixtures as per specification.	sqm	20.0		0	
7	Installation of the drain Pipe, filter pipe, inlet pipe and out let pipe as per drawings. Pipe including all Gate valves from 10 BAR HDPE pipe(high density polyethylene pipe) as per drawings.	Lms	1.0		0	
F2	**CONSTRUCTION OF 5 GATE VALVE BOX**					
1	Excavation of foundation of gate valve box as per drawing and satisfaction of RU Engineer	cum	20.0		0	
2	Boulder under the all PCC work of the wall and other area as per drawings, including compaction	cum	1.0		0	
3	Stone masonry with pointing for gate valve box and Typical Drainage: Stone masonry as per drawings, the mortar mix proportion is 1:4. Overlap and bond shall be ensured in stone masonry. Rounds, small or very big size of stones are not allowed to be used in stone masonry. Lay stones in running bond. Completely fill joints between stones with mortar. Form bed joints of a thick layer of mortar slightly furrowed or battered; bevel or pyramid the bed mortar. Place stones carefully without disturbing stones previously laid. Dry or butt joints will not be permitted. Carry stone masonry up level and plumb. Changes in coursing or bonding after the work is started will not be permitted. Do not carry one section of the walls up in advance of the others. Step back unfinished work for joining with new work. Stones shall not be placed vertically unless the size of bottom is more than 20cm. Correct bond shall be ensured in stone masonry as per satisfaction of RUN Engineer	cum	11.0		0	

RAMP-UP-NORTH

RUN-P-KHL-001 Construction of Bus Terminal

Bill of Quantities

Project Name: Construction of Bus Terminal — Date: May/19/2013

S/No.	Description	Quantity	Unit	Unit Price (AFA)	Total Price Each Item (AFA)	Remarks
4	Casting of PCC for under and over the walls ,into the drainage as per drawings, Plain concrete work of (1:2:4) proportion (M-150); best quality cement, clean coarse sand and gravel chips including screening of chips, mixing the aggregates, placing, curing at least for 14 days.	cum	2.0		0	
5	Reinforced Concrete work of (1:1.5:3) proportion (M-200); best quality steel, cement, clean course sand and gravel chips including screening of chips, mixing the aggregates, placing, curing at least for 28 days. This item will use for the slap over the gate valve box, cover plate.	cum	1.1		0	
6	Plaster for interior stone masonry works of drainage and construction of spring with 1:4 cement: sand mortar with at lest 15 mm thickness. The plaster should include the water proof plaster admixtures as per specification.	sqm	12.0		0	
7	Installation of valve for greenery, and valve for breaking the water Pipe including all Gate valves from 10 BAR HDPE pipe(high density polyethylene pipe) as per drawings.	Lms	1.0		0	
F3	**INSTALATION OF HDPE IN THE DRAINAGE**					
1	Excavation of drainage for installation of Pipes as per approved drawings	cum	240.0		0	
2	Clean sand for Back filling of drainage.	cum	80.0		0	
3	Soil for Back filling of drainage.	cum	160.0		0	
4	Installation of the 2" high density polyethylene (16 BAR HDPE) Pipe in the drainage including all fittings.	m	1000.0		0	
F4	**INSTALATION OF STAND RESORVOIR**					
1	Supply and installation of stand reservoir with 6000 litters capacity : all the works shall be according drawings.	Lms	1.0		0	
G	**Sign board, openign and closing ceremony including preparing higine handout.**	Lms	1.0		0	
Grand Total of Project Cost in AFA					[redacted]	

APPENDIX C – KHULUM BUS TERMINAL CONSTRUCTION PROJECT PROPOSAL

Regional Afghan Municipalities Program for Urban Populations

(RAMP UP-North)

Regional Command North

Project Proposal

Province:	Balkh
Municipality:	Khulm
Project Number:	RUN-P-KHL-001
Project Name:	Construction of a Bus Terminal
Project Duration:	3 months
Estimated Project Cost:	[redacted]
Date:	July 07, 2013

MGRS Coordinates of Project Area: MGRS 42SUF8293762171

GPS Coordinates:

Latitude: N: 3641.880

Longitude: E: 06741372

I. Problem Statement:

Khulm is one of the district municipalities of Balkh province, located 60 km east of Mazar-e-Sharif on the main highway between Kabul and Mazar, with a population of around 42,200 people (23,800 men and 22,400 women. The city currently does not have a bus terminal, and travelers stand on the main street for hours without access to public latrines or other facilities. In addition, the lack of vehicle parking lot facilities around the bus transit area causes traffic jams and increases the risk of traffic accidents.

II. Solution Statement:

On February 14, 2013, a joint meeting of the Khulm citizens and Municipality (12 participants, all male, including 8 citizens and 3 municipal officials, including the Mayor) was held to identify Round 1 projects. The participants prioritized and selected the construction of a bus terminal as the first priority of Khulm Municipality.

During a Regional Workshop on Project Management for Public Works conducted by RAMP UP-North, the Khulm Municipal Construction Manager with a citizen's representative drafted the project concept along with the Service Delivery Improvement Plan (SDIP), Monitoring Plan, Operations and Maintenance Plan (O&M Plan) and Communication Plan for the Construction of Bus Terminal Project.

After the completion of construction for this project, the Khulm Municipality will encourage the private sector to construct a restaurant, a supermarket, a vehicle workshop and a car washing area in a public private partnership agreement.

III. Beneficiaries:

The direct beneficiaries of this project are the entire population of Khulm Municipality, estimated at 42,200 people (23,800 men and 22,400 women), including the 800 passengers from Khulm and neighboring provinces and districts that travel daily through the Khulm Municipality. Indirect beneficiaries would be all people from other districts and provinces who would use the bus terminal.

IV. Scope of Work:

A. Methodology:

The Bus Terminal Project will be sub-contracted with a construction company. The sub-contractor will be selected through a transparent procurement process, and the sub-contractor will perform the project according to the specifications and drawings under the supervision of the RAMP UP-North Engineer and the Municipality.

B. Goods and Services Provided by RAMP UP-North:

- Site preparation and graveling the site for the parking lot,
- Construction of boundary wall,
- Construction of Waiting Hall and Bus Station Canopy,
- Construction of four cabin latrine (Two for women and two for men),
- Construction of Septic Tank,
- Construction of water supply system.

C. Goods and Services Contributed by Municipality (estimated value of $[redacted]

Municipality Contribution Bill of Quantities										
Description	**No.**	**Length (M)**	**Width (M)**	**Depth (M)**	**Quantity**	**Unit**	**Unit Price (AFA)**	**Total Price Each Item**	**Total price USD**	**Remarks**
General Work										
Site Preparation and graveling of Parking lot	1	60	14	15	126.0	Sqm	500			
Site preparation, back filling and compaction of in front site of waiting hall and canopy	1	80	20		1600.0	Sqm	50			
Greenery works in front side of Bus Terminal as per drawings	1				1.0	Lump sum	20000			
Supply and installation of Trash bins Size = 0.5m3	2				2.0	each	5000			
Estimated Value of Goods and Services Contributed by Municipality in USD:									[redacted]	

All subcontractors for RAMP UP North activities are required to hire local laborers for all unskilled labor positions. These laborers will be hired from within the community of the nearby villages and beneficiaries of RAMP UP-North activities. The subcontractor shall be responsible for providing documentation of the number of both skilled and unskilled laborers and number of days worked.

V. Cost Estimation for Goods and Services Provided by RAMP UP North:

Bill of Quantities						
Project Name: Construction of Bus Terminal				Date: May/19/2013		
S/No.	Description	Quantity	Unit	Unit Price (AFA)	Total Price Each Item (AFA)	Remarks
A	**General Work**				AFA 0.00	
1	Mobilization: Includes establishment of sub office for the sub-project, mobilizing of technical staff and equipment.	1.00	Lump sum		AFA 0.00	
2	Demolition of existing wall L=60m, H= 2.5m, Leveling and compaction of construction area, the sub contractor shall remove all the unsuitable materials and compaction as per drawings and satisfaction of Engineer.	1.00	Lump sum		AFA 0.00	
3	Graveling and compacting of in front of bus terminal and waiting hall as it is shown in the drawings, the sub contractor shall lay 15cm mixed crushed gravel and compacted 95% as per instruction of Engineer.	90.00	Cum		AFA 0.00	
4	Plain cement concrete 15cm (PCC, M:150), in front side of waiting hall and canopy, with proper curing, beast quality cement, clean coarse, fine sand & gravel mixing the aggregates for steps, according the specification as per design, drawings, specifications & satisfaction of Engineer.	75.00	Cum		AFA 0.00	
5	Construction of vase beside the road based on the drawing, the activities are includes: excavation of foundation , brick masonry with (high quality and good shape brick to have good view and pointing) Plastering inside of vase and PCC on the top of brick masonry. All the activities shall be as per drawing and satisfaction of Engineer.	80.00	m		AFA 0.00	
6	Manufacture and installation of sliding gates (1.45x7.6) meter. Work shall be done with all required activities such as supply materials and proper welding including anti rust and 3 coats painting as per drawings the color will be selected by municipality/RUN Designated Engineer	2.00	each		AFA 0.00	
B	**Boundary wall**				AFA 0.00	
1	Excavation of foundation of boundary wall of (parking lot) in all type of soil as per design, drawings, specifications & satisfaction of Engineer	36.48	Cum		AFA 0.00	

2	Stone masonry of foundation and wall, 1:4 with sand and cement mortar and also pointing two side of stone masonry wall with 1:3, with cement and sand mortar good quality as per design, drawing and satisfaction of Engineer.	54.34	Cum		AFA 0.00		
3	RCC (M:200) for Ring on the top of stone masonry wall including shuttering and curing, beast quality cement clean coarse sand and gravel as per design, drawing, specifications & satisfaction of Engineer	10.64	Cum		AFA 0.00		
4	Brick masonry, (M 1:4) with cement & sand mortar, good quality as per design, drawing and satisfaction of Engineer.	53.20	Cum		AFA 0.00		
5	Plain cement concrete 10cm (PCC, M:150), on the top of brick masonry wall including shuttering and curing, best quality of cement, clean sand and crushed aggregate according drawings, specifications & satisfaction of Engineer.	2.66	Cum		AFA 0.00		
6	Plaster, (1:4) two site of the boundary wall (12mm - 20mm) thick with good quality of cement sand mortar.	182.40	Sqm		AFA 0.00		
7	Painting 100 plastic (minimum 3 coats)	182.00	Sqm		AFA 0.00		
C	**Construction of Waiting Hall and Bus Station Canopy**				AFA 0.00		
1	Excavation of foundation in all type of soil as per design, drawings, specifications & satisfaction of Engineer	25.00	Cum		AFA 0.00		
2	Back filling and Compaction of soil in every 20cm layers of area as per design, drawing.	64.00	Cum		AFA 0.00		
3	Gravel 5cm crushed gravel (base course crashed material) paving and compacting, in rooms and around the building with all required activities.	25.50	Cum		AFA 0.00		
4	Plain cement 15cm (PCC, M:150), in foundations and rooms, with proper curing, beast quality cement, clean coarse, fine sand & gravel mixing the aggregates for steps, according the specification as per design, drawings, specifications.	77.00	Cum		AFA 0.00		
5	RCC (1:1.5:3, M:200) for Block Foundation and Rings including shuttering and curing, beast quality cement clean coarse sand and gravel as per design, drawing, specifications.	21.00	Cum		AFA 0.00		
6	Stone masonry of foundation and wall, 1:4 with sand and cement mortar including pointing two side of stone masonry wall with 1:3 cement and sand mortar good quality as per design, drawing. Possible (sub contractor may find some good shape of stone from the demolished wall).	40.00	Cum		AFA 0.00		
7	Brick masonry of waiting hall, with cement & sand mortar, good quality as per design, drawing.	42.00	Cum		AFA 0.00		

8	Plastering with (M1:4) for Interior and exterior walls (12 to 20mm the) cement sand mortar as per specifications	350.00	Sqm		AFA 0.00		
9	Supply and production of benches, production shall be from iron profile 1inch and 3cm wooden panel with all required activities.	30.00	m		AFA 0.00		
10	Supply and installation of double U shape Iron beam welded face to face for column (140x140x5)mm size. The colon shall be proper welded face to face and 3 coat antirust painted. Installation shall be according design and satisfaction of Engineer.	32.00	each		AFA 0.00		
11	Supply & installation of Iron roof main truss (No=16 x Length=8.3 m), truss shall be proper welded and 3 coat antirust painted before installation and all activity shall be as per drawing and satisfaction of engineer.	133.00	m		AFA 0.00		
12	Supply & installation of Iron roof longitudinal truss (No 3 x L=60 m), the truss shall be proper welded and 3 coat antirust painted before installation and all activity shall be as per drawing and satisfaction of engineer.	180.00	m		AFA 0.00		
13	Supply & installation of Iron roof truss supporter member or bearing (30x30mm)profile 50cm c/c, shall proper welded and 3 coat antirust painted.	1.00	Lump sum		AFA 0.00		
14	Supply & installation of Wooden Planks on truss, 8mm Plywood.	606.00	Sqm		AFA 0.00		
15	Supply & installation of Galvanized Metal roof, corrugated (gauge 24 Gal iron sheet) .	606.00	Sqm		AFA 0.00		
16	Supply & inst. Gutters around the roof (GI sheet 24 gage) .	120.00	m		AFA 0.00		
17	Supply & installation of Down pipe gutters, (GI sheet 24 gage, Nawae Khasi).	84.00	m		AFA 0.00		
18	Ceiling works: Installation of PVC board for ceiling of the waiting hall and canopies, 8mm water resist PVC board shall install with canals to the iron frames and glass wool shall be lay on the top of the PVC board, as per drawing and satisfaction of engineer.	540.00	Sqm		AFA 0.00		
19	Installation of screen: Screen net shall fixed with 2inch supported posts on the top of wall, the post shall be fixed inside the concrete on the top of wall and welded to the frame of the truss, the distance of posts shall be in two meter and the fabricated mesh from wire 4mm and 5cm hole shall install to the supported 2inch post.	120.00	Sqm		AFA 0.00		
20	Wall painting interior and exterior, (100% plastic).Three-coats with filling by plastic emulsion beast quality, as per specifications & the satisfaction of Engineer	560.00	Sqm		AFA 0.00		
21	Terrazzo tile fixing(2.5x30x30)cm for floor and 10cm (paizara), at waiting hall floor. The work shall be done with best quality of mosaic and mortar as per specifications and the satisfaction of Engineer.	130.00	Sqm		AFA 0.00		

22	Supply & installation of Fluorescent light fixture 1(2x40)w surface mounted, (1x60)w, switches, sockets distribution panel board with all necessary equipment, copper wire (2x1.5 for lights, 2x2.5 for sockets) and cable connect distribution panel to the main cable all work shall be done as per requirement drawing and satisfaction of engineer.	1.00	Lump sum		AFA 0.00		
D	**Construction of Latrine**				AFA 0.00		
1	Excavation of foundation in all type of soil as per design, drawings, specifications & satisfaction of Engineer	11.00	Cum		AFA 0.00		
2	Stone masonry of foundation and wall, 1:4 with sand and cement mortar. The sub contractor could use the good shape of stone from the demolished wall and also pointing two side of stone masonry wall with 1:3 cement and sand mortar good quality as per design, drawing and satisfaction of Engineer.	11.00	Cum		AFA 0.00		
3	Brick masonry of toilets with cement & sand mortar, good quality as per design, drawing and satisfaction of Engineer.	13.00	Cum		AFA 0.00		
4	Plaster,(1:4) Interior and exterior walls(12 to 20mm the) cement sand mortar as per specifications and the satisfaction of Engineer	150.00	Sqm		AFA 0.00		
5	Supply & installation of Glass, 4mm with wooden strip fixed at windows & doors.	1.00	Sqm		AFA 0.00		
6	Roofing works: shall use 2 inches angle iron, 60cm c/c, 3cm wooden board and 5cm PCC on the top of boards. The angle iron shall be welded with 1 inch supported angle iron in distance of 1.5m	10.00	Sqm		AFA 0.00		
7	Manufacture & installation of Doors in toilets (Ø12cm best quality Russian Khar wood frame with ironware and use of high quality Plywood plank), manufacture shall be in a very smooth and high position, as per specifications and the satisfaction of Engineer.	12.00	Sqm		AFA 0.00		
8	Manufacture & installation of Windows small & big size, main building and bath room (Ø8cm best quality Russian Khar wood with ironware), manufacture shall be in a very smooth and high position, as per specifications and the satisfaction of Engineer	1.00	Sqm		AFA 0.00		
9	Ceiling works: Installation of PVC board for ceiling toilets, 8mm water resist PVC board shall install with canals to the iron frames and glass wool shall be lay on the top of the PVC board, as per drawing and satisfaction of engineer.	10.00	Sqm		AFA 0.00		
10	Oil painting of doors and windows 3 coats best quality as per specification & the satisfaction of Engineer	12.00	Sqm		AFA 0.00		

11	Supply & inst, Water supply, (installation of one PVC tanker 2000 Liter and connection to the main pipe) & sewer sys, and furniture for toilet, with required sanitary equipment for Ozoo, including floor toilet, tap, sink, as per requirements, & satisfaction of Engineer.	4.00	Lump sum		AFA 0.00		
12	Supply & inst. Tile fixing for bathroom walls, best quality works, as per specifications and the satisfaction of Engineer.	48.00	Sqm		AFA 0.00		
13	Supply & inst. Ceramic tile fixing for floor of bathroom, best quality works as per specifications and satisfaction of Engineer	13.00	Sqm		AFA 0.00		
E	**Construction of Septic Tank**				AFA 0.00		
1	Excavation of foundation in all type of soil as per design, drawings, specifications & satisfaction of Engineer	250.00	Cum		AFA 0.00		
2	Back filling and Compaction of soil in every 20cm layers of excavated area as per design, drawing, specifications & the satisfaction of Engineer	45.00	Sqm		AFA 0.00		
3	Brick masonry, (M:200) with cement & sand mortar, good quality as per design, drawing and satisfaction of Engineer.	4.40	Cum		AFA 0.00		
4	Plaster,(1:4) Interior and exterior walls(12 to 20mm the) cement sand mortar as per specifications and the satisfaction of Engineer	36.00	Sqm		AFA 0.00		
5	Dump proofing of septic tank with two layer tar and one layer cotton	45.00	Sqm		AFA 0.00		
6	Plain cement 8cm (PCC, M:100), in foundations, with proper curing, beast quality cement, clean coarse, fine sand & gravel mixing the aggregates for steps, according the specification as per design, drawings, specifications & satisfaction of Engineer	1.00	Cum		AFA 0.00		
7	RCC (M:250) of septic tank and cover, including shuttering and curing, beast quality cement clean coarse sand and gravel as per design, drawing, specifications & satisfaction of Engineer	13.00	Cum		AFA 0.00		
8	Sewerage system, connect the sewer from the toilets to the septic tanks 20m long with 4inch High quality PVC Pipe including all fittings.	1.00	Lump sum		AFA 0.00		
F	**Construction of water supply system**				AFA 0.00		
F1	**CONSTRUCTION OF BOX FILTER**						
1	Excavation of foundation of filter box as per drawing.	cum	27.0		0		
2	Boulder under the all PCC work of the wall and other area as per drawings, including compaction.	cum	4.0		0		

3	Stone masonry with pointing for filter and Typical Drainage: Stone masonry as per drawings, the mortar mix proportion is 1:4. Overlap and bond shall be ensured in stone masonry. Rounds, small or very big size of stones are not allowed to be used in stone masonry. Lay stones in running bond. Completely fill joints between stones with mortar. Form bed joints of a thick layer of mortar slightly furrowed or battered; bevel or pyramid the bed mortar. Place stones carefully without disturbing stones previously laid. Dry or butt joints will not be permitted. Carry stone masonry up level and plumb. Changes in coursing or bonding after the work is started will not be permitted. Do not carry one section of the walls up in advance of the others. Step back unfinished work for joining with new work. Stones shall not be placed vertically unless the size of bottom is more than 20cm. Correct bond shall be ensured in stone masonry as per satisfaction of RUN Engineer.	cum	9.0		0		
4	Casting of PCC for under and over the walls and inside of drainage as per drawings, Plain concrete work of (1:2:4) proportion (M-150); best quality cement, clean coarse sand and crashed gravel chips including screening of chips, mixing the aggregates, placing, curing at least for 14 days.	cum	2.0		0		
5	Reinforced Concrete work of (1:1.5:3) proportion (M-200); best quality steel, cement, clean course sand and gravel chips including screening of chips, mixing the aggregates, placing, curing at least for 28 days. This item will use for the slap over the filter, cover plate.	cum	1.0		0		
6	Water proof Plaster for interior stone masonry works of drainage and construction of spring with 1:4 cement: sand mortar with at lest 15 mm thickness. The plaster should include the water proof plaster admixtures as per specification.	sqm	20.0		0		
7	Installation of the drain Pipe, filter pipe, inlet pipe and out let pipe as per drawings. Pipe including all Gate valves from 10 BAR HDPE pipe(high density polyethylene pipe) as per drawings.	Lms	1.0		0		
F2	**CONSTRUCTION OF 5 GATE VALVE BOX**						
1	Excavation of foundation of gate valve box as per drawing and satisfaction of RU Engineer.	cum	20.0		0		
2	Boulder under the all PCC work of the wall and other area as per drawings, including compaction.	cum	1.0		0		

3	Stone masonry with pointing for gate valve box and Typical Drainage: Stone masonry as per drawings, the mortar mix proportion is 1:4. Overlap and bond shall be ensured in stone masonry. Rounds, small or very big size of stones are not allowed to be used in stone masonry. Lay stones in running bond. Completely fill joints between stones with mortar. Form bed joints of a thick layer of mortar slightly furrowed or battered; bevel or pyramid the bed mortar. Place stones carefully without disturbing stones previously laid. Dry or butt joints will not be permitted. Carry stone masonry up level and plumb. Changes in coursing or bonding after the work is started will not be permitted. Do not carry one section of the walls up in advance of the others. Step back unfinished work for joining with new work. Stones shall not be placed vertically unless the size of bottom is more than 20cm. Correct bond shall be ensured in stone masonry as per satisfaction of RUN Engineer.	cum	11.0		0		
4	Casting of PCC for under and over the walls ,into the drainage as per drawings, Plain concrete work of (1:2:4) proportion (M-150); best quality cement, clean coarse sand and gravel chips including screening of chips, mixing the aggregates, placing, curing at least for 14 days.	cum	2.0		0		
5	Reinforced Concrete work of (1:1.5:3) proportion (M-200); best quality steel, cement, clean course sand and gravel chips including screening of chips, mixing the aggregates, placing, curing at least for 28 days. This item will use for the slap over the gate valve box, cover plate.	cum	1.1		0		
6	Plaster for interior stone masonry works of drainage and construction of spring with 1:4 cement: sand mortar with at lest 15 mm thickness. The plaster should include the water proof plaster admixtures as per specification.	sqm	12.0		0		
7	Installation of valve for greenery, and valve for breaking the water Pipe including all Gate valves from 10 BAR HDPE pipe(high density polyethylene pipe) as per drawings.	Lms	1.0		0		
F3	**INSTALATION OF HDPE IN THE DRAINAGE**						
1	Excavation of drainage for installation of Pipes as per approved drawings.	cum	240.0		0		
2	Clean sand for Back filling of drainage.	cum	80.0		0		
3	Soil for Back filling of drainage.	cum	160.0		0		
4	Installation of the 2" high density polyethylene (16 BAR HDPE) Pipe in the drainage including all fittings.	m	1000.0		0		
F4	**INSTALATION OF STAND RESORVOIR**						
1	Supply and installation of stand reservoir with 6000 litters capacity : all the works shall be according drawings.	Lms	1.0		0		

G	**Sign board, openign and closing ceremony including preparing higine handout.**	Lms	1.0		0	
Grand Total of Project Cost in AFA					[redacted]	

VI. Involvement and Leadership of Municipal Staff in Project Selection, Development, Implementation, and Monitoring & Evaluation:

On February 18-21, 13, during a Regional Workshop on Project Management for Public Works conducted by RAMP UP North, the Khulm Municipal Construction Manager, together with a citizens' representative, drafted the project concept along with the Service Delivery Improvement Plan (SDIP), Monitoring Plan, Operations and Maintenance Plan (O&M Plan) and Communication Plan for the Bus Terminal Project.

The drawings, designs and BOQs were prepared in close coordination and consultation with the Khulm Mayor and Engineer, and these two officials were also involved from the first step of the project initiation and development.

The monitoring, evaluation, and oversight of this project will be led by the Mayor and the municipal construction department's engineers, along with technical assistance from the RAMP UP North team.

VII. Level of Public Participation:

On February 14, 2013, a joint meeting of the Khulm citizens and municipality (12 participants, all male, including 8 citizens and 3 municipal officials, including the Mayor) was held to identify Round 1 projects. The participants prioritized and selected the construction of a bus terminal as the first priority of Khulm Municipality.

Following this meeting, citizens' representatives were invited to a Regional Workshop on Project Management for Public Works conducted by RAMP UP North, where the Khulm Municipal Engineer, together with a citizens' representative, drafted the project concept along with the Service Delivery Improvement Plan (SDIP), Monitoring Plan, Operations and Maintenance Plan (O&M Plan) and Communication Plan for the construction of the bus terminal project.

The citizens promised to play an active role in the monitoring of the Bus Terminal project during the initial construction and also to monitor the operation of the project and revenue collection after project completion.

VIII. Activity Objectives:

1. Improve communication and relationships between the Mayor/municipal officials and citizens.
2. Improve the participation of citizens in decision-making processes related to the planning, design, implementation, and monitoring of municipal services.
3. Improve and increase the level of service delivery in terms of bus terminals.
4. Improve the public's perception of the municipality's ability to deliver sustainable services.
5. Increase revenue generation and the sustainability of municipal service delivery from a public private partnership to operate the bus terminal.
6. Improve public health and the cleanliness of the environment for travelers using the bus terminal.
7. Reduce traffic congestion and traffic accidents.

IX. Sustainability and Maintenance:

Municipality and Citizen Contribution (After Project Completion):

The municipality and citizens will work together in the below activities:

- Monitoring the maintenance of the bus terminal.
- Participatory monitoring with citizens for insuring continued service delivery through the Bus Terminal project.
- Putting trash bins inside and outside in order to keep the terminal clean.

Revenue Enhancement:

Below main sources are aimed to be used in order to boost the municipal revenue by constructing the bus terminal in Khulm district:

- Leasing a “vehicle repair workshop” through a public private partnership.
- Leasing a “Car washing area” through a public private partnership
- Leasing a ” Restaurant/Coffee Shop” through a public private partnership
- The Bus Terminal Project will be managed by the Khulm Municipality Revenue Department and all revenues will be transferred to the Khulm Municipality account.

The municipality will have $ **3,960 USD** annual revenue based on sustainability analysis of the project.

SUSTAINABILITY ANALYSIS

FOR

(Khulm Bus Terminal)

MONTHLY AND ANNUAL REVENUE GENERATION				
Item	**No**	**Daily Revenue(USD)**	**Total Revenue Monthly (USD)**	**Total Revenue Annually (USD)**
No. parking lot users (Vehicles/day)	100	20	600	7,200
Restaurant	1		30	360
Workshop	1		30	360
Car Washing Area	1		30	360
Total Revenue Monthly and Annually (USD)			**690**	**8,280**

MONTHLY AND ANNUAL O&M EXPENSES					
Description	**Unit**	**Monthly Salary**	**Quantity**	**Total Cost/Month (AFA)**	**Total Cost/Annual (AFA)**
Chawkidar/Guard(male)+ cleaner	Person	100	2	200	2,400
Power consumption	KW			60	720
Maintenance cost	LS			60	720
Black water removal	LS			40	480
Total				**360**	**4,320**

RENENUE GENERATION ANALYSIS				
Monthly Revenue (USD)	**Monthly Expenses (USD)**	**Monthly Contractor Profit (USD)**	**Monthly Municipality Net Revenue (USD)**	**Annual Municipality Net Revenue (USD)**
690	**360**	**150**	**180**	**3,960**

X. Capacity Development:

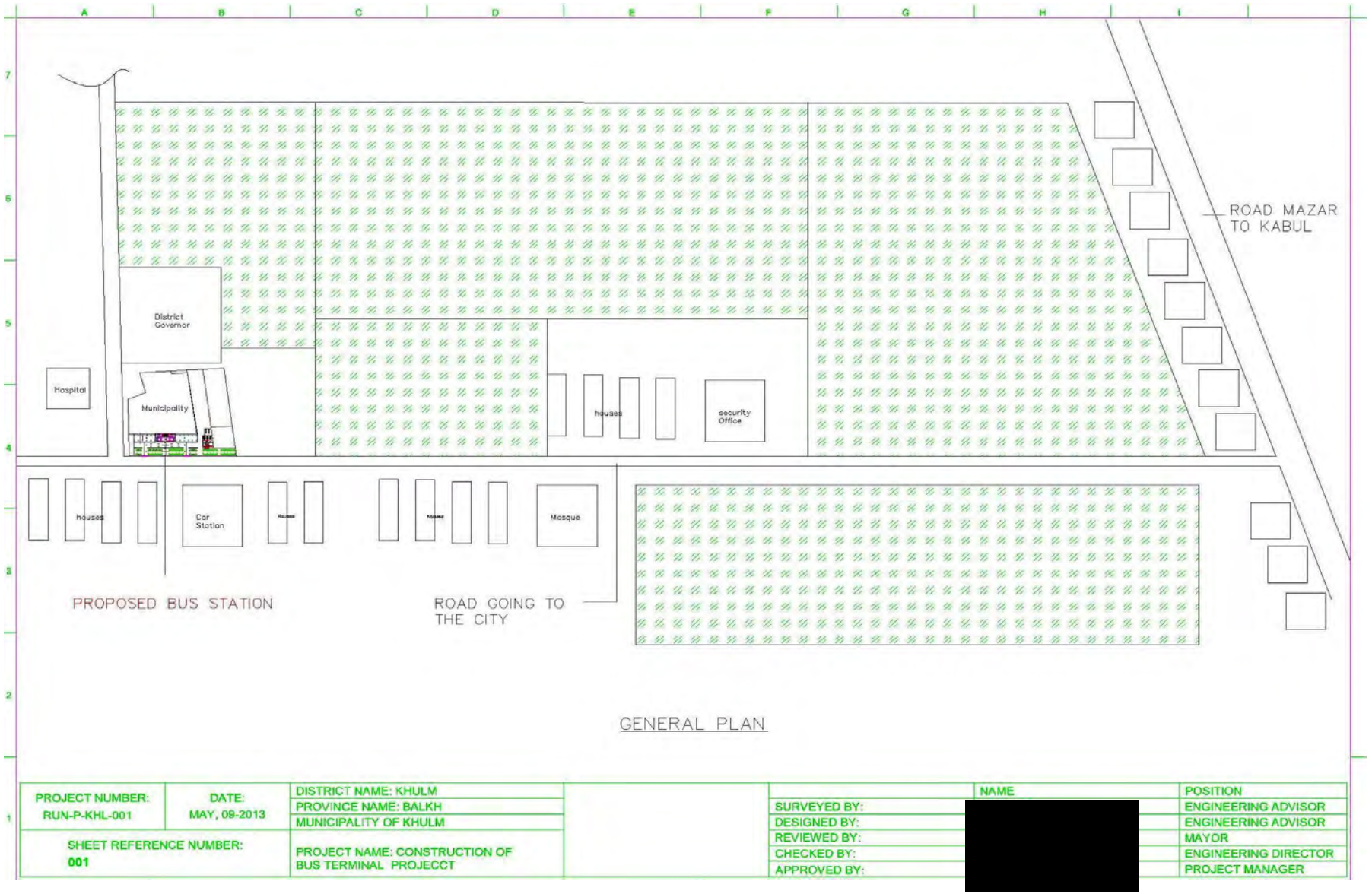
The project will help to develop the capacity of municipal officials and citizen representatives by applying a learning-by-doing approach in terms of planning, implementing, monitoring, and managing during the following project activities:

- Project selection process
- Project development process
- Project procurement process
- Project implementation process
- Project monitoring process
- Public-private partnerships process

XI. Unique Aspects of Project:

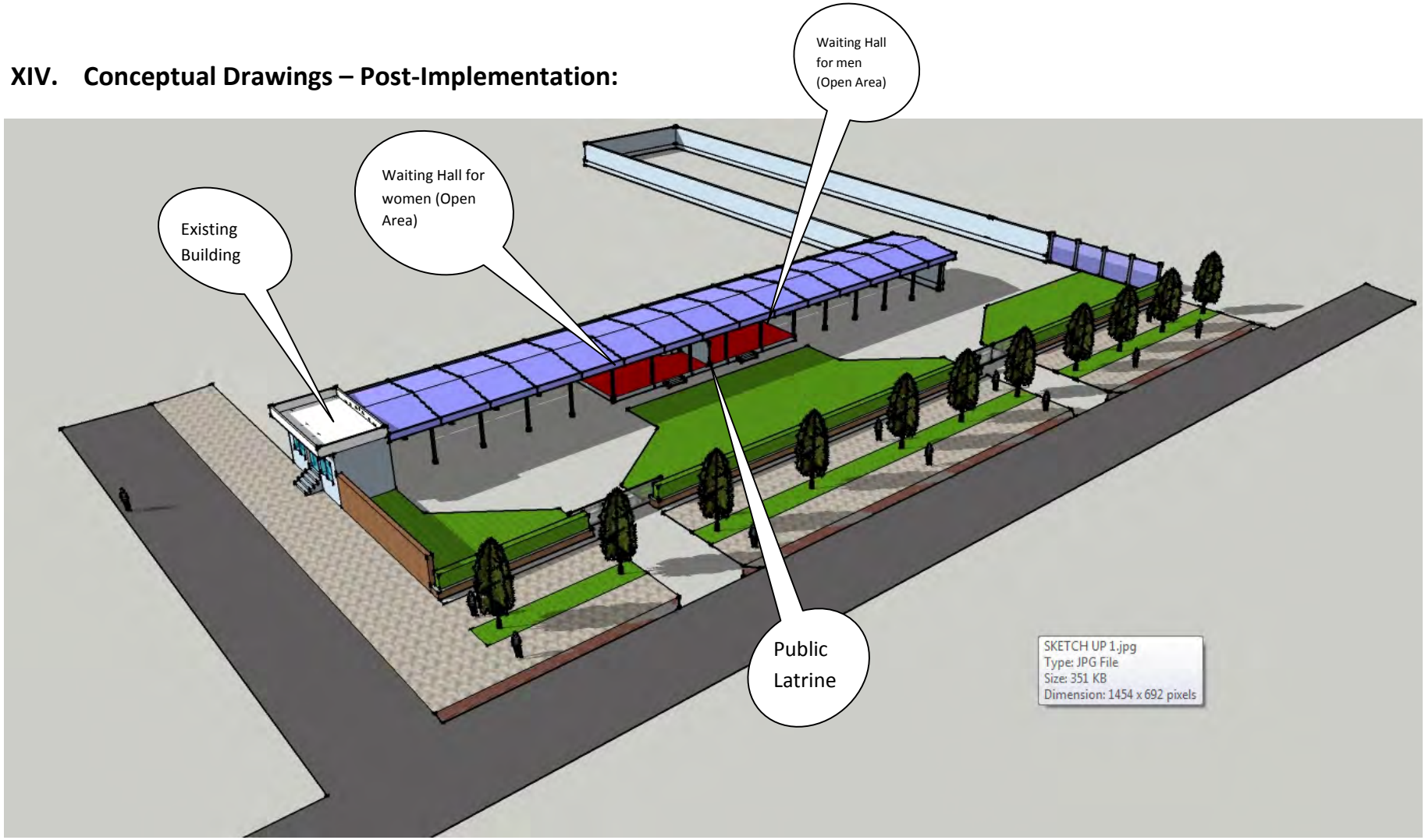
- The project will address traffic problems in the municipality.
- The project will have the potential for developing additional public-private partnerships.
- The construction of this bus terminal and the latrines will also improve public health and the cleanliness of the municipal environment.

XII. Sketches:



XIII. Photos – Pre-Implementation:

XIV. Conceptual Drawings – Post-Implementation:

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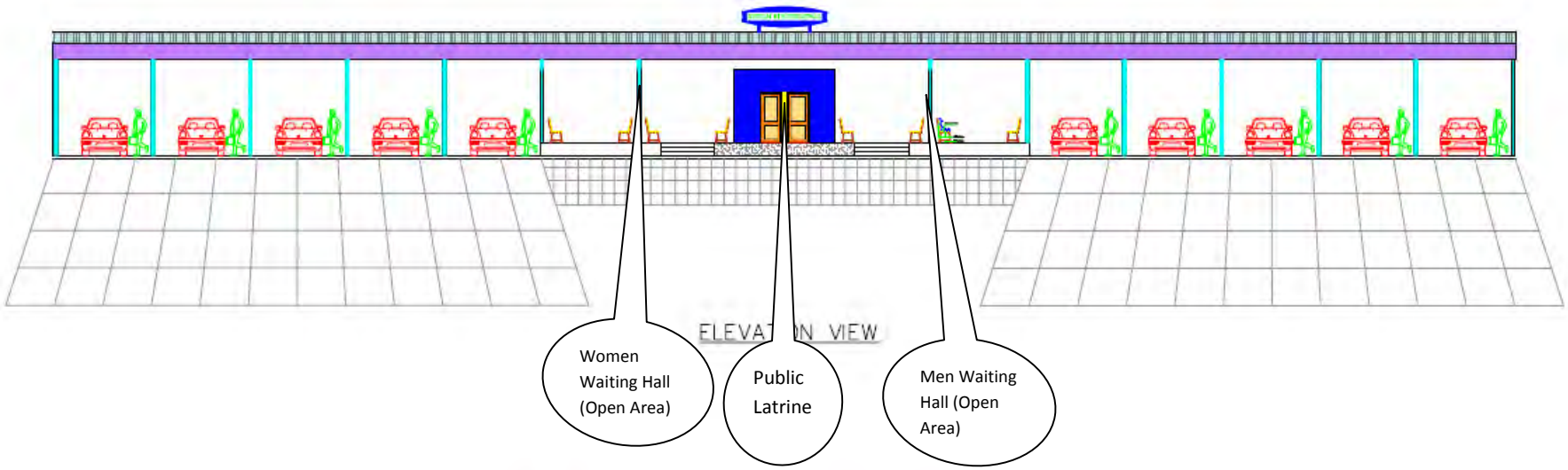

ELEVATION VIEW